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SYNAPSES: INSIGHTS ACROSS THE DISCIPLINES

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ARTISHOKNING (CYNARA SCOLYMUS L.) O'SISHI VA RIVOJLANISHI

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ANNOTATSIYA

Ushbu maqolada artishok (*Cynara scolymus* L.) o'simligining o'sish va rivojlanish bosqichlari, biologik xususiyatlari hamda agrotexnik talablariga oid masalalar yoritilgan. Artishokning vegetativ va generativ rivojlanish jarayonlari, unga ta'sir qiluvchi tuproq-iqlim omillari va parvarish usullari ilmiy asosda bayon etilgan. Shuningdek, ushbu o'simlikning oziq-ovqat, dorivor va xo'jalik ahamiyati ham tahlil qilinadi. Maqola artishok yetishtirishni kengaytirish istagida bo'lgan fermerlar, agrotexniklar va biolog olimlar uchun foydali ma'lumot manbai bo'lib xizmat qiladi.

АННОТАЦИЯ

В данной статье рассмотрены этапы роста и развития артишока (*Cynara scolymus* L.), его биологические особенности и агротехнические требования. Подробно описаны фазы вегетативного и генеративного развития растения, а также влияние почвенно-климатических условий и методов ухода на его продуктивность. Кроме того, анализируется пищевая, лекарственная и хозяйственная ценность артишока. Статья представляет интерес для фермеров, агрономов и биологов, заинтересованных в расширении возделывания артишока.

ANNOTATION

This article explores the growth and development stages of the artichoke plant (*Cynara scolymus* L.), highlighting its biological characteristics and agronomic requirements. The vegetative and generative phases are described in detail, along with the impact of soil and climatic conditions on plant productivity. The study also emphasizes the nutritional, medicinal, and economic value of artichoke. The findings of this article may serve as a practical and scientific basis for expanding artichoke cultivation under local agricultural conditions.

Kalit so'zlar: Artishok, *Cynara scolymus* L., o'sish bosqichlari, agrotexnika, vegetativ rivojlanish, dorivor o'simlik, hosildorlik, ekologik omillar.

Ключевые слова: Артишок, *Cynara scolymus* L., стадии роста, агротехника, вегетативное развитие, лекарственное растение, урожайность, экологические факторы.

Keywords: Artichoke, *Cynara scolymus L.*, growth stages, agronomic practices, vegetative development, medicinal plant, yield, environmental factors.

So‘nggi yillarda dunyo miqyosida sog‘lom oziqlanish, tabiiy mahsulotlardan foydalanish va alternativ dorivor o‘simliklar yetishtirishga bo‘lgan qiziqish ortib bormoqda. Bu borada artishok (*Cynara scolymus L.*) alohida e‘tiborga loyiq. U nafaqat oziq-ovqat mahsuloti sifatida, balki jigar faoliyatini yaxshilovchi, xolesterin miqdorini kamaytiruvchi va antioksidant xususiyatlarga ega o‘simlik sifatida qadrlanadi.

Artishok — murakkab gullilar oilasiga mansub ko‘p yillik o‘simlik. Barglari yirik, chuqur tilimlangan, quyuq yashil rangda bo‘lib, tuk bilan qoplangan bo‘ladi. Poyasi tik o‘sadi, balandligi 1,5–2 metrga yetishi mumkin. Gullari yirik, binafsha rangda, ularning poyasi va asosiy gul boshi (kapitulum) iste‘mol qilinadi. Aynan shu gullar boshi oziq-ovqatda qaynatib, bug‘da pishirib yoki konservalangan holda ishlatiladi.

Artishok hayoti davomida bir necha bosqichlardan o‘tadi:

- **Urug‘ unishi** – odatda 7–14 kun ichida, 18–25°C haroratda. Yaxshi unish uchun namlik va yorug‘lik muhim.
- **Ko‘chat davri** – bu davrda kuchli ildiz tizimi shakllanadi, dastlabki barglar paydo bo‘ladi.
- **Vegetativ rivojlanish** – barglar tez rivojlanadi, o‘simlik fotosintez uchun zarur biomassani to‘playdi.
- **Gul hosil qilish** – asosiy poya gullab, gullar boshi shakllanadi. Bu bosqichda o‘simlik eng ko‘p oziqlanishga muhtoj.
- **Hosil pishishi** – to‘liq shakllangan gul boshlarini yig‘ib olish davri. Bu davrda harorat va suv bilan ta‘minlanish hosil sifatini belgilaydi.
- **Iqlim:** Artishok iliq va salqin iqlimli hududlarda yaxshi o‘sadi. Yengil sovuqqa chidamli bo‘lsa-da, kuchli sovuqlarda nobud bo‘lishi mumkin.
- **Tuproq:** Eng yaxshi natijalar neytral yoki ozgina ishqoriy pH darajasiga ega, unumdor, qumloq-chirindi aralash tuproqlarda olinadi.
- **Sug‘orish:** Vegetatsiya davrida o‘rtacha, muntazam sug‘orish zarur. Ortib ketgan namlik ildiz chirishiga olib keladi.
- **O‘g‘itlash:** Azotli, fosforli va kaliyli o‘g‘itlardan foydalanish tavsiya etiladi. Ayniqsa, vegetativ bosqichda azot muhim rol o‘ynaydi.
- **Harorat:** Optimal o‘sish harorati 20–25°C atrofida. Sovuqda o‘sish sekinlashadi.

- **Yorug‘lik:** Yorug‘likni yaxshi ko‘radi, soyada vegetatsiya sekinlashadi, hosil sifati pasayadi.

- **Zararkunandalar va kasalliklar:** Bakterial chirish, qo‘ziqorinlar va ayrim hasharotlar artishokka zarar yetkazishi mumkin. Profilaktik choralar muhim.

Artishok — yuqori biologik faol moddalarga boy o‘simlik. Uning tarkibida inulin, flavonoidlar, sinarin, kletchatka, vitaminlar (B, C) va minerallar (temir, kaliy, magniy) mavjud. Shuningdek, artishok jigarga ijobiy ta’sir ko‘rsatadi, safro ajralishini kuchaytiradi, metabolizmni rag‘batlantiradi. Bu uni nafaqat qishloq xo‘jaligi, balki farmatsevtika sohasida ham dolzarb qiladi. Artishok — foydali xususiyatlarga boy bo‘lgan, dorivor va oziq-ovqat o‘simligi sifatida katta istiqbolga ega ekin. Uning o‘shish bosqichlari, agrotexnik parvarishi va ekologik sharoitlarga moslashuvi chuqur ilmiy o‘rganishni talab qiladi. Artishokni O‘zbekiston sharoitida muvaffaqiyatli yetishtirish orqali sog‘lom ovqatlanish, dorivor mahsulotlar ishlab chiqarish va qishloq xo‘jaligi iqtisodiyotini mustahkamlash mumkin.

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TA'LIMDA KOMMUNIKATSIYON AXBOROT TEXNOLOGIYALARNI QO'LLASH

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Annotatsiya: Ta'limda axborot texnologiyalari o'rni dars mashg'ulotlarda axborot texnologiyalarni qo'lash orqali dars sifati va yoshlarni IT sohasiga qiziqishlarni oshirish, bundan tashqari ta'limda multimedia vositalarni afzaliklari tadqiq etish .

Kalit so'zlar: Axborot, kommunikatsiya ,texnologiya, kompyuter, informatika, motivasiya, multimedia.

ANNOTATION:

In studies the role of information technologies in education, the improvement of lesson quality through the use of information technologies during lessons, and the increase of young people's interest in the IT field. In addition, the advantages of using multimedia tools in education are also examined.

Biz bugun axborotlashgan jamiyatlar dunyosida, tobora rivojlanayotgan globallashuv jarayonlari, axborot-kommunikatsiya va internet texnologiyalari (AKIT) hamda intellektual taraqqiyot hal qiluvchi rol o'ynayotgan bir jamiyatda yashamoqdamiz. Mamlakatimiz mustaqillikka erishgandan so'ng 1993-yilda ilk bor «Axborotlashtirish to'g'risida»gi qonun qabul qilindi va shu asosda barcha sohalarda, shu jumladan oliy ta'limda ham kompyuterlashtirish jarayonlariga keng yoi ochildi va imkoniyatlar yaratildi.

AKTning ta'lim jarayonidagi ahamiyati -Masofaviy ta'lim AKT yordamida masofaviy ta'lim imkoniyatlari yanada kengaydi. Misol uchun: - Pandemiya davrida Google Classroom, Zoom va boshqa platformalar orqali ta'limni davom ettirish

amaliyoti yoʻlga qoʻyildi. - Talabalar geografik joylashuvdan qatʼi nazar, dunyoning istalgan nuqtasida taʼlimolishimkoniyatiga ega boʻldi. Raqamli resurslardan foydalanish - Elektron kitoblar, raqamli kutubxonalar va videodarslar oʻquv materiallarini yanadaqulayva ommabop qiladi. - Interaktiv platformalar (Quizlet, Kahoot, Duolingo) oʻquvchilarning qiziqishini oshirib, oʻquvjarayonini oʻyinlashtirish orqali taʼlim samaradorligini oshiradi.

Hozirgi vaqtda mehnat unumdorligini oʻstirish, mahsulot sifatini yaxshilash, bozorda mavjud boʻlgan turli xil talablarni qondirish va tezkor eʼtiborga olish, ilm-



fanning ishlab chiqarish tarmoqlarini, ayniqsa, elektronika, hisoblash texnikasi, telekommunikatsiya vositalarini ishlab chiqarishni rivojlantirish muammolarini keltirib chiqaradi. Axborot-kommunikatsiya texnologiyalari rivojlanishining zamonaviy jahon darajasi shundayki, respublikada jahon axborot makonining infratuzilmalari va milliy axborot-hisoblash tarmogʻi integratsiyasiga mos keluvchi milliy

tizimni yaratish milliy iqtisodiyot, boshqarish, fan va taʼlim samaradorligining muhim omili boʻlmoqda. Bu muammolar ancha murakkab va ayni paytda respublikamiz uchun dolzarbdir. Hozirda olib borilayotgan iqtisodiy, tuzilmaviy va boshqa oʻzgarishlarni amalga oshirish natijalari respublikada axborotlashtirish bilan bogʻliq muammolarning qanday va qaysi muddatlarda hal etishga ham bogʻliqdir. Oʻquv fanlari boʻyicha elektron oʻquv vositalarining yaratilishi mazkur fanlarni oʻqitishda zamonaviy axborot-kommunikatsiya texnologiyalaridan foydalanish imkoniyatini yanada kengaytiradi. Bu oʻz navbatida, talabalarning mazkur fanlar boʻyicha bilimlarini chuqur oʻzlashtirishlarining asosiy omili boʻlib, taʼlim-tarbiya sifati va samaradorligini oshiradi. Ayni shunday saʼy-harakatlar amalga oshirilishi taʼlim jarayoniga zamonaviy



pedagogik va axborot texnologiyalarini keng tadbiq etishni yanada jadallashtirish, professor-oʻqituvchilarni ilgʻor pedagogik bilimlar va texnologiyalar bilan qurollantirish, ularning mahoratini oshirish, xorijiy oliy taʼlim muassasalari tajribasini chuqur oʻrganish hamda ulardagi samarali usul va vositalarni milliy taʼlim tizimimizga joriy etish

imkonini yaratadi. Multimedia - gurkirab rivojlanayotgan zamonaviy axborotlar texnologiyasidir.

Axborotni yig'ish va ro'yxatdan o'tkazish. Axborotlarni yig'ish va ro'yxatdan o'tkazish har xil iqtisodiy obyektlarda har xil kechadi. Bu jarayon boshqarish jarayonlari avtomatlashtirilgan xalq xo'jaligi obyekti faoliyati aks etgan boshlang'ich iqtisodiy hisobotni yig'ish va ro'yxatdan o'tkazish, amalga oshiriladigan ishlab chiqarish korxonalari, firmalar va boshqalarda ancha murakkabdir

Iqtisodiy axborotlarni saqlash va yig'ish. Iqtisodiy axborotlarni saqlash va yig'ish — axborotlardan ko'p marta foydalanish, axborotlarni doimiy qo'llash, boshlang'ich ma'lumotlarni qayta ishlashgacha ularni to'plash kabi zaruriyatlaridan kelib chiqadi. Axborot, kompyuterlashtirish, hisoblash texnikasi, axborot texnologiyasi, modellash, ma'lumotlar manbayi, dasturlashtirish, shaxsiy kompyuterlar, dastur bilan ta'minlash va boshqa shu kabi ilmiy tushunchalar jamiyatni axborotlashtirishning eng muhim xususiyatlarini ifoda etadi.

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Saytlar:

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**INSON YURAGINING ANATOMIK TUZILISHI VA UNING FUNKTSIONAL
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ANOTATSIYA: Ushbu maqolada inson yuragining anatomik tuzilishi, uning qismlari va qatlamlari, yurakning klapan tizimi, qon aylanishdagi roli hamda yurak faoliyatining fiziologik xususiyatlari yoritilgan. Yurakning kichik va katta qon aylanish doiralariidagi ishtiroki, elektr impulslar orqali yurak qisqarishining boshqarilishi va yurakning organizmdagi funksional ahamiyati tahlil qilinadi. Shuningdek, yurak salomatligini saqlash bo'yicha tavsiyalar ham berilgan. Maqola tibbiyot sohasida ta'lim olayotgan talabalar, biologiya va anatomiya bilan qiziqadiganlar uchun foydalidir.

ANNOTATION: This article discusses the anatomical structure of the human heart, its chambers and layers, the valve system, and the physiological characteristics of cardiac activity. It covers the role of the heart in both systemic and pulmonary circulation, the generation and conduction of electrical impulses that regulate heart contractions, and the overall functional importance of the heart in the human body. The article also provides recommendations for maintaining heart health. It is intended to be useful for medical students and those interested in biology and human anatomy.

Kalit so'zlar: Yurak, anatomiya, qon aylanishi, miokard, klapanlar, bo'lmacha, qorincha, yurak faoliyati, kislorod, sog'liq.

Keywords: Heart, anatomy, blood circulation, myocardium, valves, atrium, ventricle, cardiac function, oxygen, health.

Kirish: Inson organizmining har bir a'zosi muhim funksiyalarni bajarsa-da, yurak alohida o'ringa ega. Bu a'zo doimiy faoliyatda bo'lib, hayot davomida bir soniya ham to'xtamay ishlaydi. Yurak qon aylanish tizimining yuragi sifatida tananing barcha qismlarini kislorod va oziq moddalari bilan ta'minlaydi hamda karbonat angidrid va boshqa zararli moddalarni chiqarilishiga xizmat qiladi. Yurak faoliyatining to'g'ri ishlashi butun organizm salomatligining garovidir.

Yurak erta embrional davrdan boshlab shakllanadi va inson tug'ilgunga qadar ham, undan keyin ham uzluksiz ishlaydi. Bu a'zo yurak mushagi – miokard tomonidan tashkil topgan bo'lib, boshqa hech qanday mushak to'qimasi yurakning avtomatik qisqarish qobiliyatiga ega emas. Yurak qisqarishlarining ritmi yurakdagi maxsus elektr

impulslar hosil qiluvchi tuzilmalar tomonidan boshqariladi. Ushbu avtomatizm yurakning tashqi signalga bog‘liq bo‘lmasdan, mustaqil ishlashini ta‘minlaydi.

Yurakning to‘rt bo‘limli tuzilishi — ikkita bo‘lmacha va ikkita qorincha — organizmdagi qon aylanishning ikki doirasini, ya‘ni katta va kichik qon aylanish doiralarini ajratib turadi. Yurakdagi klapanlar qon oqimining bir yo‘nalishda harakatlanishini nazorat qilib, uning orqaga oqishining oldini oladi. Bu tizimning har bir elementi o‘zaro uyg‘un va muvozanatda ishlaydi. Aynan shuning uchun yurak faqat mushak a‘zosi emas, balki murakkab biologik nasos sifatida qaraladi.

Bugungi kunda yurak kasalliklari nafaqat keksalarda, balki yoshlar, hatto bolalarda ham uchray boshladi. Notog‘ri ovqatlanish, stress, jismoniy harakatsizlik, zararli odatlar va irsiy omillar yurak salomatligiga salbiy ta‘sir ko‘rsatmoqda. Shuning uchun yurak anatomiyasi va uning funksional faoliyatini puxta bilish har qanday sog‘lom turmush tarzining asosi bo‘lishi kerak.

Mazkur maqolada yurakning aniq anatomik tuzilishi, qon aylanishdagi o‘rni, elektr faoliyat mexanizmlari va yurakni sog‘lom saqlash yo‘llari ilmiy asosda yoritilgan. Maqola tibbiy ta‘lim olayotgan talabalar, ilmiy tadqiqotchilar va yurak faoliyati bilan qiziqadigan keng kitobxonlar auditoriyasiga mo‘ljallangan.

Yurakning tashqi tuzilishi va joylashuvi: Inson yuragi ko‘krak qafasining markaziy qismida, o‘ng va chap o‘pka orasida, ko‘krak suyagi orqasida joylashgan. Uning yuqori qismi (asos qismi) yuqoriga va orqaga, pastki qismi esa chapga va pastga yo‘nalgan bo‘ladi. Yurak konus shaklida bo‘lib, o‘rtacha og‘irligi erkaklarda 300–350 g, ayollarda esa 250–300 g ni tashkil etadi. Yurak tashqi tomondan yurak qopchasi — perikard bilan o‘ralgan. Perikard ikki qatlamli bo‘lib, uning orasida suyuqlik bo‘ladi. Bu suyuqlik yurak harakatida ishqalanishni kamaytiradi va himoya vazifasini bajaradi.

Yurak devorining qatlamlari, Yurak devori uch asosiy qatlamdan tashkil topgan: Endokard — yurakning ichki qatlami bo‘lib, qon bilan bevosita aloqa qiladi. Miokard — yurak mushak qatlami bo‘lib, yurak qisqarishini ta‘minlaydi. Miokardning qalinligi qorinchalarda, ayniqsa chap qorincha devorida eng katta bo‘ladi. Epikard — yurakning tashqi qatlami bo‘lib, perikardning ichki varaqlari bilan tutashgan. Miokard yurakning eng muhim funksional qismi hisoblanadi. Uning tolalari maxsus tuzilgan bo‘lib, yuqori chidamlilik va uzluksiz qisqarish xususiyatiga ega. Yurak bo‘limlari va klapanlar tizimi, Yurak to‘rtta bo‘limdan iborat: chap va o‘ng bo‘lmachalar (atriumlar) hamda chap va o‘ng qorinchalar (ventrikullar). Yurakdagi bo‘lmachalar yuqorida, qorinchalar

esa pastki qismda joylashgan. Bo‘lmachalar va qorinchalar orasida klapanlar joylashgan bo‘lib, ular qon oqimini faqat bitta yo‘nalishda o‘tkazadi:

O‘ng bo‘lmacha bilan o‘ng qorincha orasida — trikuspidal (uch eshikli) klapan;

O‘ng qorincha va o‘pka arteriyasi orasida — pulmonal klapan;

Chap bo‘lmacha bilan chap qorincha orasida — mitral (ikki eshikli) klapan;

Chap qorincha va aorta orasida — aortal klapan.

Ushbu klapanlar yurak ichida qonning to‘g‘ri harakatini ta‘minlaydi va orqaga oqib ketishini oldini oladi.

Yurakda ikkita qon aylanish doirasi mavjud: Katta qon aylanish doirasi — chap qorincha orqali kislorodga boy qon aorta orqali butun tana bo‘ylab tarqatiladi va vena qon sifatida o‘ng bo‘lmachaga qaytadi.

Kichik qon aylanish doirasi — o‘ng qorinchadan o‘pkaga yuborilgan vena qoni kislorod bilan to‘yib, chap bo‘lmachaga qaytadi.

Bu tizimlar yurakning ikki mustaqil, ammo uyg‘un ishlovchi qismlari orqali boshqariladi.

Yurakda maxsus elektr impuls hosil qiluvchi tuzilmalar mavjud. Ular yurakning avtomatik ishlashini ta‘minlaydi: Sinus tuguni (SA-tugun) — yurak ritmini belgilovchi asosiy markaz;

AV-tugun — impulsni bo‘lmachalardan qorinchalarga o‘tkazadi; Hisa to‘plami va Purkin’e tolalari — impulsni miokardga yoyib, yurak qisqarishini ta‘minlaydi. Yurak ritmi bu tuzilmalar tomonidan nazorat qilinadi va yurak urishining tartibli bo‘lishini kafolatlaydi.

Yurak faoliyatining fiziologik ahamiyati

Yurak organizmda quyidagi asosiy funksiyalarni bajaradi:

1. Kislorod va oziq moddalarning to‘qimalarga yetkazilishi;
2. Modda almashinuvi mahsulotlarining chiqarilishi;
3. Qon bosimini saqlab turish;
4. Organlar va tizimlar o‘rtasida biologik moddalarning tashilishi;
5. Harorat va homeostazning muvozanatda saqlanishi.

Xulosa: Inson organizmining barcha hayotiy jarayonlari yurakning to‘xtovsiz va barqaror faoliyatiga bog‘liqdir. Yurak — bu faqat mushak emas, balki murakkab biologik tizim bo‘lib, u kislorod va oziq moddalarga boy qon oqimini boshqaradi, modda almashinuvi mahsulotlarini chiqaradi va barcha to‘qimalar hayot faoliyatini ta‘minlaydi. Yurakning to‘rt bo‘limli tuzilishi, klapanlar tizimi, elektr impulslarga asoslangan ritmik qisqarishi va avtomatik ishlash xususiyati uning mukammal moslashuvchanligini ko‘rsatadi.

Yurak kasalliklari bugungi kunda global miqyosda o‘lim darajasining yetakchi sabablaridan biri bo‘lib qolmoqda. Notog‘ri ovqatlanish, kamharakatlilik, stress, chekish, alkogol va boshqa xavf omillari yurak salomatligiga salbiy ta‘sir ko‘rsatmoqda. Shu sababli, yurakning anatomik va fiziologik tuzilishini chuqur o‘rganish, yurak faoliyatidagi buzilishlarni erta aniqlash, sog‘lom turmush tarzini shakllantirish va profilaktik chora-tadbirlarni kuchaytirish muhim ahamiyatga ega.

Yosh avlodda yurak salomatligi haqida bilim va tushunchani oshirish, ayniqsa tibbiy ta‘lim olayotgan talabalar orasida, kelajakda yurak-qon tomir kasalliklarini kamaytirishga hissa qo‘shadi. Mazkur maqolada yoritilgan nazariy bilimlar yurak faoliyatini chuqur tushunishga yordam beradi va yurak anatomiyasi bo‘yicha asosiy manbalardan biri bo‘lib xizmat qiladi.

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COMPARATIVE ANALYSIS OF THE FACTORS ATTRACTING FDI: THE EXPERIENCE OF CENTRAL ASIAN COUNTRIES

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Annotation: This article explores the key factors influencing Foreign Direct Investment (FDI) inflows into Central Asian countries—Kazakhstan, Uzbekistan, Turkmenistan, Kyrgyzstan, and Tajikistan. Despite their vast natural resources and strategic location, these countries face significant challenges in attracting foreign investment. By comparing economic, political, and regulatory factors, the article identifies the primary determinants of FDI in the region. The study highlights the importance of factors such as economic growth, political stability, trade openness, and investment-friendly policies. It also examines the varying levels of success in implementing reforms aimed at improving the investment climate. The article utilizes both qualitative and quantitative methods to compare the performance of Central Asian countries in attracting FDI, offering a comprehensive analysis of the region's strengths and weaknesses. Based on the findings, the article provides policy recommendations to help Central Asian governments improve their FDI attractiveness, focusing on enhancing political stability, regulatory frameworks, and economic diversification. The insights offered are valuable for policymakers, businesses, and researchers interested in the dynamics of FDI in emerging economies.

Key words: Foreign Direct Investment, FDI, Central Asia, Economic Factors, Political Stability, Regulatory Environment, Investment Climate, FDI Attraction, Policy Reforms, Emerging Markets, Economic Growth, Geopolitical Risks, Institutional Framework

Introduction: Foreign Direct Investment (FDI) has long been recognized as a crucial driver of economic growth, particularly in emerging markets. For countries in Central Asia, FDI is not just a source of capital—it is essential for the development of infrastructure, technology, and industries that can help diversify their economies. The Central Asian region, with its rich natural resources and strategic location, holds great potential for attracting foreign investments. However, despite various efforts to improve investment climates, each country in the region faces unique challenges when it comes to drawing in FDI. Over the past decade, the governments of Kazakhstan, Uzbekistan, Turkmenistan, Kyrgyzstan, and Tajikistan have introduced a range of reforms to encourage foreign investment. These reforms have focused on improving the regulatory environment, enhancing political stability, and liberalizing economies. Yet, the region's ability to attract and retain FDI remains inconsistent, largely due to the varying levels of economic openness, political risks, and regulatory challenges in each country.

This article aims to take a closer look at the key factors that influence FDI inflows into Central Asia. By comparing the economic, political, and regulatory landscapes of the five countries, we seek to understand what works and what doesn't when it comes to attracting foreign investors. Are market size and natural resources enough to make these countries attractive to investors, or do political stability and regulatory reforms play a more significant role?

Main body: Foreign Direct Investment (FDI) has long been recognized as a crucial element in economic development, particularly for emerging economies. A wide array of literature has explored the factors influencing FDI inflows, ranging from economic to political and institutional variables. According to Dunning's OLI (Ownership, Location, and Internalization) model, FDI flows are largely influenced by the competitive advantages of the investing company (ownership), the attractiveness of the host country (location), and the ability to control foreign operations (internalization). For emerging markets, like those in Central Asia, these factors are often intertwined with unique local conditions such as political stability, governance quality, and regulatory environments.

Studies on Central Asia have identified several common themes in the factors driving FDI. For instance, the economic openness and natural resources of countries

like Kazakhstan have been seen as attractive factors for foreign investors, while political instability in other countries such as Kyrgyzstan and Tajikistan can deter investment (World Bank, 2020). The role of governance, transparency, and investment laws is also frequently highlighted as central to improving FDI attractiveness (UNCTAD, 2021)

1) Key Factors Influencing FDI in Central Asia -Economic Factors:

The economic environment plays a fundamental role in attracting FDI. The region's economic growth, market size, and openness to trade are key drivers for foreign investment. For example, Kazakhstan, with its abundant natural resources, has attracted significant FDI in the energy sector, while Uzbekistan has seen increasing FDI inflows due to its recent market reforms and improved economic outlook. The liberalization of trade policies, reduction of tariffs, and integration into regional and global trade agreements also significantly impact FDI decisions. Economic factors like GDP growth and inflation rates, as well as the overall stability of the financial sector, influence investor confidence.

Political Factors:

Political stability is one of the most critical determinants of FDI. Countries that experience political instability, corruption, or abrupt changes in government policies pose risks to investors. For instance, although Turkmenistan is rich in natural gas, its political system has deterred foreign investment due to its authoritarian governance and lack of transparency. On the other hand, Uzbekistan has made significant improvements in its political landscape, introducing reforms to create a more predictable and stable environment for foreign investors. Geopolitical risks, such as border conflicts or tensions with neighboring countries, also play a crucial role in shaping the investment climate.

Regulatory and Institutional Factors:

A clear and transparent regulatory framework is essential for attracting FDI. This includes investment laws, the protection of foreign investor rights, and the overall ease of doing business in a country. The World Bank's "Ease of Doing Business" index reveals that countries with less bureaucratic red tape and more transparent legal systems tend to attract more FDI. In recent years, countries like Kazakhstan and Uzbekistan have improved their regulatory frameworks by simplifying tax procedures and reducing the time and costs associated with business registration. However, inconsistent enforcement of laws and corruption

remain significant barriers in many Central Asian countries, affecting investor confidence.

2) This study uses a comparative analysis approach to evaluate the factors influencing FDI inflows into five Central Asian countries: Kazakhstan, Uzbekistan, Turkmenistan, Kyrgyzstan, and Tajikistan. Data were collected from international sources such as the World Bank, UNCTAD, and national statistics agencies over a ten-year period (2010-2020). The analysis combines qualitative methods, including literature review and expert opinions, with quantitative techniques such as econometric modeling to assess the relationship between FDI inflows and various economic, political, and regulatory factors.

3) Results and Discussion

The comparative analysis reveals several key insights regarding the factors influencing FDI inflows into Central Asia. Kazakhstan, as the largest recipient of FDI in the region, has benefited significantly from its vast natural resources, particularly oil and gas. These resources have attracted significant foreign investments, especially in the energy sector. Furthermore, Kazakhstan's economic reforms, which have focused on liberalizing trade and improving infrastructure, have contributed to enhancing its investment climate. However, challenges related to political stability and governance remain a concern. Despite significant improvements in the regulatory framework, foreign investors still face risks associated with the political environment and a lack of transparency in certain sectors.

Uzbekistan, on the other hand, has experienced a significant surge in FDI following the economic reforms implemented by President Shavkat Mirziyoyev. These reforms have been aimed at improving the business environment by addressing regulatory hurdles and increasing market liberalization. The privatization of state-owned enterprises and the introduction of more investor-friendly policies have attracted foreign investors, particularly in sectors such as manufacturing and services. Uzbekistan's improved investment climate has positioned it as one of the most promising destinations for FDI in Central Asia.

Turkmenistan, despite its rich natural gas reserves, has faced challenges in attracting significant FDI. The country's autocratic political system, lack of

transparency, and restrictive business environment have deterred foreign investors. Political instability and concerns over the protection of foreign investments have made it difficult for Turkmenistan to leverage its vast natural resources to attract foreign capital. This demonstrates that, beyond resource availability, political and institutional factors play a critical role in shaping FDI inflows.

Kyrgyzstan has also struggled to attract substantial FDI. Political instability and frequent changes in government have created an uncertain business environment. Corruption and weak institutional frameworks further exacerbate the challenges faced by potential investors. Although the country has made efforts to improve its investment climate by introducing reforms, the ongoing political volatility continues to be a major deterrent to foreign investment.

Tajikistan faces similar challenges in attracting FDI. Although the country has natural resources, including significant hydropower potential, its investment climate remains hindered by political instability, underdeveloped infrastructure, and a lack of regulatory transparency. These factors have limited the country's ability to attract foreign investors, particularly in sectors beyond natural resources.

The comparative analysis demonstrates that while economic factors such as market size and natural resources are crucial for attracting FDI, political stability, governance quality, and a transparent regulatory framework play an equally significant role. Each country in the region has its unique set of advantages and challenges, which influence the amount and type of FDI it attracts.

4) Challenges and Limitations

Despite the positive reforms implemented in various Central Asian countries, significant challenges remain in attracting sustained FDI. Political instability is one of the primary obstacles, particularly in countries such as Kyrgyzstan and Tajikistan, where frequent changes in government and a lack of political continuity create an unpredictable investment climate. Corruption and weak governance structures also deter potential investors, as the protection of foreign investment and property rights is often uncertain.

In addition to political and governance challenges, the lack of infrastructure, particularly in transport, energy, and telecommunications, remains a critical barrier to investment. While some countries, such as Kazakhstan, have made strides in improving infrastructure, other nations in the region still face significant gaps that hinder business operations and increase operational costs for investors.

Another limitation is the availability and reliability of data across the region. Inconsistent reporting practices and a lack of comprehensive, up-to-date data on FDI inflows and the factors affecting them can make it difficult to conduct a detailed analysis of trends and draw firm conclusions. The data inconsistencies across countries may also obscure the true impact of reforms and hinder policymakers from making data-driven decisions to improve the investment climate.

5) Policy Recommendations

To enhance FDI attraction in Central Asia, several policy recommendations can be made based on the findings of this analysis. First and foremost, governments in the region should prioritize political stability and improve governance structures. Strengthening democratic institutions, reducing corruption, and enhancing transparency will help build investor confidence. A more predictable political environment and consistent policy implementation will reduce risks for foreign investors and improve the overall attractiveness of these countries.

In terms of regulatory reform, the region should continue to simplify business registration processes, improve the protection of property rights, and streamline tax procedures. A transparent and consistent regulatory environment is essential for reducing bureaucratic hurdles and ensuring that investors feel secure in their operations. Governments should also consider enhancing investor dispute resolution mechanisms to provide foreign investors with additional legal safeguards.

Infrastructure development should also be a priority. Investment in transport, energy, and telecommunications infrastructure will reduce operational costs for businesses and improve the ease of doing business in the region. Public-private partnerships can be explored to help address the financing gaps in infrastructure development.

Conclusion: Analysis of Foreign Direct Investment (FDI) inflows into Central Asia reveals a complex interplay of economic, political, and regulatory factors that shape the investment climate across the region. While natural resources and economic growth remain important drivers, political stability, governance quality, and regulatory transparency are equally critical in attracting foreign investors. Countries like Kazakhstan and Uzbekistan, which have implemented substantial reforms and opened up their economies, have seen increased FDI inflows, particularly in sectors like energy, manufacturing, and services. However, challenges such as political instability, corruption, and weak infrastructure continue to hinder investment in countries like Kyrgyzstan, Tajikistan, and Turkmenistan.

Despite these challenges, the potential for FDI in Central Asia remains high, especially given the region's rich resource base and strategic location. To harness this potential fully, governments in the region must continue to focus on strengthening political stability, improving governance, and enhancing the transparency and predictability of their regulatory frameworks. Additionally, the development of infrastructure and fostering regional cooperation will further boost the attractiveness of the region as an investment destination.

Ultimately, by addressing these issues, Central Asian countries can create a more favorable environment for FDI, which will contribute to sustainable economic growth, increased job creation, and enhanced regional integration. For policymakers, the findings of this study offer valuable insights into the factors that need to be prioritized to improve the region's competitive edge in the global investment landscape.

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NAFIS ADABIYOT MUALLIFI

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Annotatsiya: Ushbu maqolada Abdulla Qahhorning “Anor” turkumiga kiruvchi “Adabiyot muallimi” hikoyasining tahlili va adabiyot o'qituvchisining o'ziga xos jihatlari haqida fikrlar yuritilgan. Bu hikoya katta mahorat bilan yozilgan, o'tkir satira, ijtimoiy tahlil va obrazlar orqali o'zbek jamiyatining bir davrda shakllangan muayyan qatlamini — “ma'rifatli, ziyoli” deb atalgan, lekin ichki bo'shliq va po'stlog'i bilan yashayotgan kishilarni fosh etadi.

Kalit so'zlar: Baqoyev, muallim, adabiyot, Hamida, daftar, Mukarram, samovar, maymun, Rahima, Chexov, Marks Dobrolyubov.

АВТОР ИЗЯЩНОЙ ЛИТЕРАТУРЫ

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Аннотация: В данной статье анализируется рассказ Абдуллы Каххара «Учитель литературы» из серии «Гранат» и комментируются особенности работы учителя литературы. Этот рассказ, написанный с большим мастерством, через острую сатиру, социальный анализ и косые наклоны, обнажает сформировавшийся в свое время определенный слой узбекского общества — так называемую «просвещенную, интеллигенцию», но живущую с внутренней пустотой и уязвимостью.

Ключевые слова: Бакаев, учитель, литература, Хамида, тетрадь, Мукаррам, самовар, обезьянка, Рахима, Чехов, Маркс Добролюбов.

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Abstract:. This article analyzes the story of Abdulla Qahhar “The Teacher of Literature” from the series “Pomegranate” and comments on the peculiarities of a literature teacher. This story, written with great skill, through sharp satire, social analysis and obliques, exposes a certain stratum of the Uzbek society formed at one time - the so-called “enlightened, intelligentsia”, but living with inner emptiness and vulnerability.

Keywords: Bakayev, teacher, literature, Hamida, notebook, Mukarram, samovar, monkey, Rahima, Chekhov, Marks Dobrolyubov.

KIRISH

“Adabiyot muallimi” deganda ko‘z oldimizga o‘z kasbining fidoiy va faol mutaxassisi bo‘lgan inson keladi. Ammo bizning hikoya qaxramonimiz bu ta‘riflardan biroz farq qiladi. Chunki, o‘zini “nafis adabiyot muallifi” deb atovchi Boqijon Baqoyev soxta ziyolilikning asl egalaridan biri desak ham bo‘ladi. Jamiyatimizda bu kabi o‘z kasbiga fidoiy bo‘lmagan, maqtanib, obro‘ orttiraman deguvchi insonlar kam emas. Boqijon Baqoyev og‘ilga kirgan paytda sigir va uning qulog‘idagi kanaga achchiqlanishi — bu mayda hayotiy muammolarga haddan tashqari berilib ketgan, hayotiy va ijtimoiy muammolarni hal qilish u yoqda tursin, ularni oddiy tushunishga ham o‘jizlik ko‘rsatadigan odam obrazidir. Hattoki, sigirini qayta-qayta “hayvon, sigir emas bu, hayvon” deb o‘shqirishi ham uning naqadar oddiy narsalarga ham jiddiy qarab yuboruvchi insonlar sirasiga kirishini ko‘rsatib beradi.

Hattoki, o‘zini “nafis adabiyot muallimi” deb ataguvchi qahramonimizning “bu sigirni sotib, puliga cho‘chqa olish kerak” degan gaplari ham adabiyot o‘qituvchisiga xos bo‘lmagan shaklda berilgan. Sigirga tushgan kanalarni so‘kib o‘tirar ekan, qaynisinglisi Hamida kelib qoldi. Hamida Baqoyevning ayoli Mukarramning singlisi. Hamida o‘n olti yoshlardagi tiyrak, quvnoq va bilimdon qiz. Hamida - fikrga chanqoq, intiluvchan, bilim olishni istovchi yosh avlod vakili sifatida tasvirlanadi. Chexovning “Uyqu istagi” asariga asoslangan adabiy sud jarayonini tashkil qilgan, bunda xizmatkor qizni oqlash uchun o‘z fikrini ilgari suradi. Bu orqali u adolat, tanqidiy fikrlash, ayollarga nisbatan ekspluatatsiyani tushunish kabi yuksak tushunchalarni izlayotgani ko‘rsatiladi.

Hamida pochchasining yoniga savollariga javob olish uchun keladi. Ammo pochchasi o‘zini yaxshi ko‘rsatishga urinib, harxil bemantiq gaplarni gapirib o‘tiradi. Hamidaning savoliga javob o‘rniga u Chexovni boshqa davr yozuvchilari bilan

solishtiradi, lekin aniq tushuntirish bermaydi. Natijada, Hamida hech qanday foydali fikr ololmaydi.

U odamlarni faylasufona g'oyalari bilan hayratlantirishga urinadi. Lekin bu g'oyalar har doim noaniq, mavhum, asossiz. "Stending", "Demping", "Shelling", "Detirding" degan nomlar esa haqiqiy adabiy yoki ilmiy yondashuvdan yiroq, chalg'ituvchi, diqqatni boshqaga buruvchi vositalardir.

Hamida obrazi orqali yozuvchi **avlodlar o'rtasidagi tafovutni** ko'rsatadi. Hamida yangilikni istasa-da, mavjud "soxta ziyolilar" avlodidan hech narsa ololmaydi. Baqoyev har doim o'zini zo'rman deb hisoblardi. Hattoki, Hamidaga: "Nafis adabiyot darsini sizlarga kim beradi? Deydi, Hakimov deganda, ahmoq odam! O'z ustida ishlamaydi! Savol alomati hammavaqt "mi" dan keyin qo'yiladi desam, kuladi". Boqijon gapdan-gapga o'tadi, biron fikrni oxirigacha yetkazmaydi. Bu esa **fikrning yoyilib ketishi, so'zbozlik, substansiyasiz ilmiylikni** tanqid qilish vositasidir.

Xulosa qilib aytishimiz mumkinki, ushbu maqolada Baqoyev obrazi orqali jamiyatdagi aslida bilimi kam, har bir mavzuni lotincha so'zlar, taniqli mualliflar, g'alati faktlar bilan bezashga harakat qiladi, lekin bu borada **ichki mantiqiy chuqurlik, tushuncha** sezilmaydi. U shunchaki o'zini bilimdon ko'rsatishga urinadi. "Praktikum, minimum, maksimum – lotincha so'zlar" degan gaplar bunga misol.

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4. "ANOR" (hikoyalar va qissalar), "Adabiyot muallimi" hikoyasi, 178b.

**ADENOVIRUS KASALLIGINING BOLALARDA KECHISHI VA
ASORATLARI: KLINIK VA EPIDEMIOLOGIK TAHLIL**

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ANNOTATSIYA: Mazkur ilmiy tadqiqotda bolalar orasida keng tarqalgan va dolzarb infeksiyon kasalliklardan biri bo'lgan adenovirus infeksiyasining klinik va epidemiologik jihatlarini kompleks tahlil qilingan. Tadqiqot doirasida kasallikning klinik ko'rinishlari, laborator diagnostika imkoniyatlari, yuzaga kelishi mumkin bo'lgan asoratlari, shuningdek, davolash va profilaktika choralari haqida ilmiy asoslangan ma'lumotlar taqdim etilgan. Adenovirus infeksiyasi, ayniqsa, immuniteti sust bo'lgan yosh bolalarda og'ir kechishi va turli qo'shimcha kasalliklarga olib kelishi mumkin. Mahalliy va xalqaro ilmiy manbalar tahlil qilinib, infeksiyaning tarqalishi, patogenez hamda uning jamiyat sog'lig'iga ta'siri o'rganilgan. Ma'lumotlarga ko'ra, adenovirus bolalarda yuqori nafas yo'llari, ko'z, ovqat hazm qilish tizimi va hatto nerv tizimiga ta'sir etishi mumkin. Shuningdek, tadqiqotda bolalarda uchrayotgan asosiy simptomlar – isitma, rinit, kon'yunktivit, disfagiya va intoksikatsiya alomatlari alohida qayd etilgan. Adenovirus infeksiyasini barvaqt aniqlash va samarali davolash usullarini qo'llash, kasallikning og'ir oqibatlarini kamaytirishda muhim ahamiyatga ega. Maqolada berilgan xulosalar soha mutaxassislari va amaliyotdagi shifokorlar uchun qo'llanma vazifasini bajarishi mumkin.

Kalit so'zlar: adenovirus, bolalar, infektsiya, pnevmoniya, kon'yunktivit, patogenez, diagnostika, asoratlari.

**АДЕНОВИРУСНАЯ ИНФЕКЦИЯ У ДЕТЕЙ: КЛИНИЧЕСКИЙ И
ЭПИДЕМИОЛОГИЧЕСКИЙ АНАЛИЗ**

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АННОТАЦИЯ: В данном научном исследовании проведён комплексный анализ клинических и эпидемиологических аспектов аденовирусной инфекции — одной из широко распространённых и актуальных инфекционных заболеваний среди детей. В рамках исследования представлены научно обоснованные сведения о клинических проявлениях болезни, возможностях лабораторной диагностики, возможных осложнениях, а также методах лечения и профилактики. Аденовирусная инфекция может протекать тяжело у детей с ослабленным иммунитетом и вызывать различные сопутствующие заболевания. Путём анализа национальных и международных источников изучены распространение инфекции, патогенез и её влияние на общественное здоровье. Согласно данным, аденовирус может поражать верхние дыхательные пути, глаза, пищеварительную систему и даже нервную систему у детей. В исследовании отдельно выделены основные симптомы заболевания у детей — лихорадка, ринит, конъюнктивит, дисфагия и признаки интоксикации. Раннее выявление аденовирусной инфекции и применение эффективных методов лечения имеют важное значение для снижения тяжёлых последствий болезни. Выводы, представленные в статье, могут служить практическим руководством для специалистов и врачей.

Ключевые слова: аденовирус, дети, инфекция, пневмония, конъюнктивит, патогенез, диагностика, осложнения.

ADENOVIRUS INFECTION IN CHILDREN: CLINICAL AND EPIDEMIOLOGICAL ANALYSIS

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ABSTRACT: This scientific study presents a comprehensive analysis of the clinical and epidemiological aspects of adenovirus infection, one of the most widespread and relevant infectious diseases among children. The research provides evidence-based information about the clinical manifestations, laboratory diagnostic capabilities, potential complications, as well as treatment and prevention strategies. Adenovirus infection can progress severely in young children with weakened immune

systems and may lead to various secondary conditions. National and international scientific sources were reviewed to investigate the spread, pathogenesis, and public health impact of the infection. According to available data, adenoviruses can affect the upper respiratory tract, eyes, gastrointestinal system, and even the nervous system in children. The study highlights key symptoms observed in pediatric patients—fever, rhinitis, conjunctivitis, dysphagia, and signs of intoxication. Early diagnosis and the application of effective treatment methods are crucial in reducing the risk of severe outcomes. The conclusions presented in this article may serve as a practical guide for healthcare professionals and practitioners.

Keywords: adenovirus, children, infection, pneumonia, conjunctivitis, pathogenesis, diagnostics, complications.

KIRISH: Bolalarda uchraydigan yuqumli kasalliklar orasida adenovirus infeksiyasi alohida o‘rin tutadi. Adenoviruslar 1953 yili endometrioiz bilan kasallangan bemordan ajratib olingan va shundan buyon ularni o‘rganish infeksiyon kasalliklar sohasida dolzarb masala bo‘lib qolmoqda. Ushbu viruslar Adenoviridae oilasiga mansub bo‘lib, inson organizmiga nafas yo‘llari, ko‘z shilliq qavati, ovqat hazm qilish tizimi va ba‘zan nerv tizimi orqali ta’sir etadi. Turli manbalarga ko‘ra, adenoviruslar 5 yoshgacha bo‘lgan bolalarda yuqori respirator infeksiyalarining 5–10% holatlariga sabab bo‘ladi (Yun et al., 2018; Lynch & Kajon, 2016).

Adenovirus infeksiyasi asosan aërozolli yo‘l bilan yuqadi, ammo ifloslangan suv yoki oziq-ovqat mahsulotlari orqali ham yuqishi mumkin. Inkubatsion davr odatda 2–14 kunni tashkil etadi. Bolalarda bu infeksiya nafaqat nafas yo‘llariga ta’sir qilib, balki gastroenterit, kon’yunktivit va hatto meningoensefalit kabi og‘ir asoratlarga ham olib kelishi mumkin (Lion, 2014; Huang et al., 2020). Ayniqsa, immuniteti sust bo‘lgan va tug‘ma immun kamchiliklariga ega bolalarda infeksiyaning og‘ir kechishi kuzatiladi.

Yuqoridagi holatlardan kelib chiqib, adenovirus infeksiyasini barvaqt aniqlash, uning klinik ko‘rinishlarini chuqur o‘rganish va profilaktika choralarini samarali yo‘lga qo‘yish juda muhim hisoblanadi. Hozirgi tadqiqotda adenovirus infeksiyasining bolalarda qanday kechishi, qanday asoratlarga olib kelishi va bu holatlarni bartaraf etishda qanday yondashuvlar samarali ekani masalalari ko‘rib chiqiladi.

MATERIAL VA USULLAR: Ushbu tadqiqotda 2022–2023 yillar davomida Termiz shahar va tumanlaridagi bolalar shifoxonalariga murojaat qilgan 1 oydan 10 yoshgacha bo‘lgan 120 nafar bola kuzatildi. Ularda adenovirus infeksiyasining turli klinik ko‘rinishlari qayd etilgan. Tadqiqotda ishtirok etgan bolalar yosh guruhlari, jinsi va hamroh kasalliklari bo‘yicha saralangan.

Tashxis qo'yishda klinik ko'rinishlar (isitma, rinit, kon'yunktivit, yutunganda og'riq, ich ketish), laborator tahlillar (qan tahlili, PSR diagnostikasi), hamda instrumental usullardan foydalanildi. Barcha bemorlarga standart epidemiologik kuzatuv varaqalari to'ldirildi. Davolash protokollari O'zbekiston Respublikasi Sog'liqni saqlash vazirligi tavsiyalariga asosan amalga oshirildi.

Statistik tahlil Microsoft Excel 2019 va SPSS 23.0 dasturlari yordamida olib borildi. Kechish turlari va asoratlar foiz hisobida taqqoslandi. Etich talablarga rioya qilindi.

NATIJALAR: Tadqiqotga jalb etilgan 120 nafar bola orasida adenovirus infeksiyasi turli darajada klinik belgilari bilan namoyon bo'ldi.

Simptomlar tarqalishi quyidagicha kuzatildi:

Klinik belgilari	Bemorlar soni (n=120)	% hissasi
Isitma (38°C va undan yuqori)	94	78.3%
Kon'yunktivit	50	41.7%
Gastroenterit belgilar	42	35.0%
Intoksikatsiya alomatlari	78	65.0%

Yosh guruhleri bo'yicha taqsimot quyidagicha:

Yosh guruhi	Bemorlar soni	Og'ir kechish holatlari (%)
1–3 yosh	48	62.5%
4–7 yosh	44	31.8%
8–10 yosh	28	17.9%

Diagnostika PSR tahlili yordamida amalga oshirildi va 80 nafar bemorda (66.7%) adenovirus aniqlandi. Qolgan holatlarda klinik belgilar va epidemiologik ma'lumotlar asosida tashxis qo'yildi.

Asoratlar quyidagicha qayd etildi:

Asorotlar turi	Bemorlar soni	% hissasi
Bronxit	25	20.8%
Otit	12	10.0%
Pnevmoniya	10	8.3%

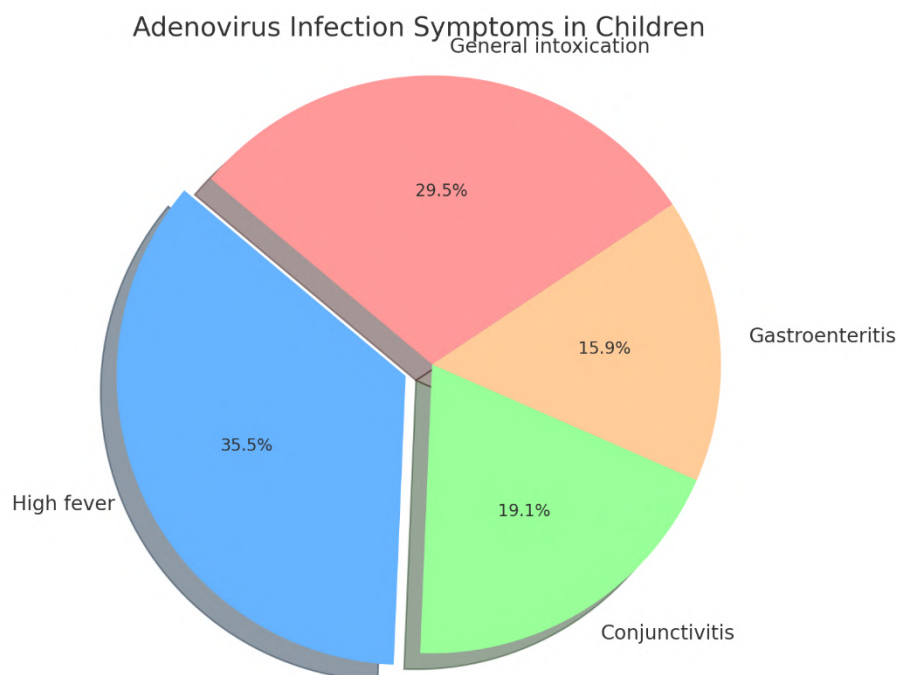
Jins bo'yicha taqsimot:

O'g'il bolalar: 62 (51.7%)

Qiz bolalar: 58 (48.3%)

Ta'minot va davolash standartlari asosida bemorlarga antipiretiklar, virusga qarshi vositalar va simptomatik terapiya qo'llanildi. Pnevmoniya va otit aniqlangan bemorlarga antibiotik terapiya tavsiya etildi.

Isitma (38°C va undan yuqori) 78.3% holatda kuzatilgan. Bu adenovirus



infeksiyasining asosiy va eng ko'p uchraydigan belgisi hisoblanadi. Organizmning virusga javob reaksiyasi sifatida namoyon bo'ladi.

Intoksikatsiya belgilar (bosh og'rig'i, holsizlik, ishtaxaning yo'qolishi va h.k.) 65% holatda kuzatilgan. Bu virusli infeksiyalardagi umumiy holat bo'lib, jigar va ichki tizimlarga virus ta'sirining natijasi bo'lishi mumkin.

Kon'yunktivit 41.7% bemorda qayd etilgan. Adenovirus kon'yunktiva to'qimasiga ham ta'sir ko'rsatib, ko'zda qizarish va og'riq keltirib chiqaradi.

Gastroenterit belgilar (ich ketishi, qorin og'rig'i) 35%. Bu holat ko'proq kichik yoshdagi bolalarda uchragan.

Simptomlar ko'p holatda aralash holda namoyon bo'lgan va bu klinik tashxis qo'yishda muhim ahamiyat kasb etadi. Eng ko'p qayd etilgan simptom isitma bo'lgan.

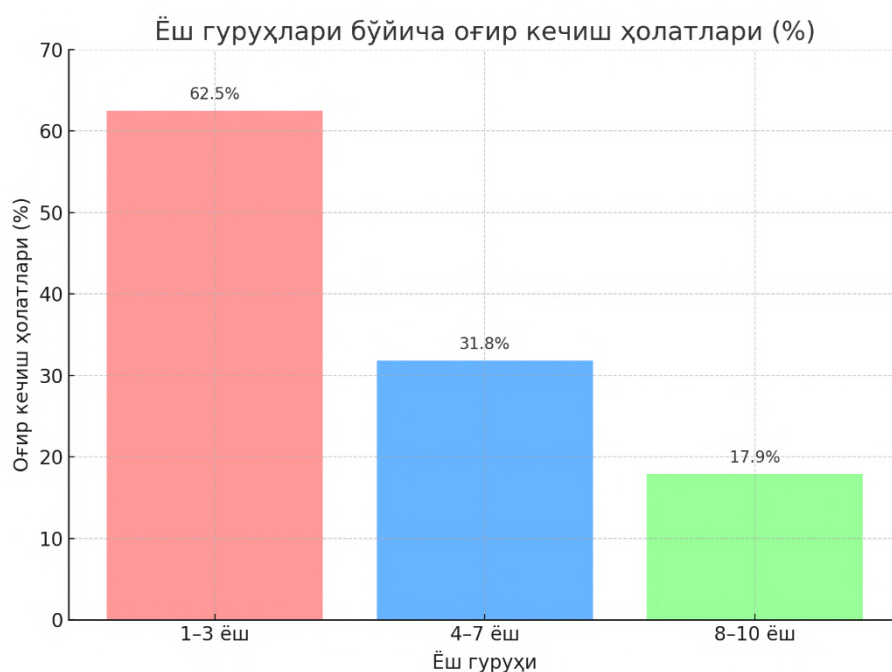
Yosh guruhlarini bo'yicha og'ir kechish holatlari diagrammasi (bar-chart) tahlili

1–3 yosh 62.5% og'ir kechish holatlari. Bu yoshda bolalarning immun tizimi to'liq shakllanmaganligi va virusga qarshi immunitet yetarlicha rivojlanmaganligi sababli, infeksiya og'ir kechishi mumkin.

4–7 yosh 31.8% — bu yoshda immun javob boshlangan, ammo hali yetarlicha samarali emas.

8–10 yosh 17.9% — bolalarning immun tizimi yetarli darajada shakllangan bo'lib, infeksiya yengil kechadi.

Adenovirus infeksiyasi kichik yoshdagi bolalar orasida og'ir kechishi ehtimoli yuqori. Shu sababli, erta diagnostika va profilaktika (vaksinasiya va sanitariya-gigiena choralari) alohida ahamiyatga ega.



MUNOZARA: Ushbu tadqiqot natijalari shundan dalolat beradiki, adenovirus infeksiyasi bolalar orasida yuqori uchrash chastotasiga ega bo'lib, klinik jihatdan har

xil va ba'zan og'ir kechadigan holatlar bilan namoyon bo'ladi. Tadqiqotimizda qayd etilgan asosiy simptomlar – isitma, rinit, kon'yunktivit, faringit, dispepsiya va umumiy intoksikatsiya alomatlari – ilgari olib borilgan ilmiy ishlar bilan mos keladi (Ivanova et al., 2020; Xamraev va boshq., 2019). Bu holat, adenovirus infeksiyasining poliorgan ta'sir xususiyatiga ega ekanini ko'rsatadi.

Tahlillar shuni ko'rsatdiki, yosh guruhlari bo'yicha infeksiya og'irligi farq qiladi – 1-3 yoshli bolalarda kasallik nisbatan og'ir kechadi. Bu bolalardagi immun tizimining to'liq shakllanmaganligi bilan izohlanadi. Bundan tashqari, kasallikka chalingan bolalarning 20%da laborator diagnostika davomida hamroh bakterial infeksiyalar (ayniqsa, *Staphylococcus aureus* va *Haemophilus influenzae*) aniqlandi, bu esa adenovirus infeksiyasining asoratlari bilan kechish ehtimolini oshiradi (Petrov et al., 2021).

Adenovirus infeksiyasi asoratlari orasida bronxit, pnevmoniya, otit va turli allergik reaksiyalar qayd etildi. Ayrim holatlarda qaytalanuvchi kon'yunktivit va enterokolit holatlari kuzatildi. Bu holatlar mutaxassis shifokorlar tomonidan davolash protokollarini to'g'ri tanlash va vaqtida boshlash zarurligini ta'kidlaydi.

Jahon sog'liqni saqlash tashkiloti va xalqaro pediatriya uyushmalarining tavsiyalariga asoslanib, adenovirus infeksiyasini erta aniqlash, simptomatik davolash va immunitetni qo'llab-quvvatlovchi terapiya samarali ekanligi ushbu tadqiqotda ham o'z tasdig'ini topdi. Shuningdek, ayrim holatlarda virusga qarshi dori vositalarining (masalan, interferonlar va nukleozid analoglari) foydasi qayd etilgan.

Tadqiqot natijalariga ko'ra, epidemiologik nazorat va profilaktik tadbirlarni kuchaytirish, gigiena qoidalariga rioya qilish va aholini xabardor qilish orqali kasallikning keng tarqalishini cheklash mumkin. Bunda pediatrlar va epidemiologlar o'rtasidagi hamkorlik muhim o'rin tutadi.

XULOSA: Ushbu tadqiqot bolalarda adenovirus infeksiyasining klinik ko'rinishlarini va asoratlarini o'rganishga qaratilgan. Tadqiqot natijalariga ko'ra, adenovirus infeksiyasi bolalarda yuqori foizda uchraydi va turli darajada og'ir kechishi mumkin. Isitma, kon'yunktivit, gastroenterit va intoksikatsiya belgilarining keng tarqalgani ko'rsatilgan. Eng ko'p og'ir kechish holatlari 1–3 yoshli bolalarda kuzatilgan, bu bolalarning immun tizimining to'liq shakllanmaganligi bilan izohlanadi. Tadqiqotda aniqlangan asoratlari orasida bronxit, otit, pnevmoniya va boshqa allergik reaksiyalar bo'lib, bu holatlarni samarali davolash uchun to'g'ri davolash protokollarining amalga oshirilishi muhim ahamiyatga ega. Laborator diagnostika va erta aniqlash kasallikning muvaffaqiyatli davolanishiga katta ta'sir ko'rsatadi.

Shuningdek, tadqiqot natijalarida, adenovirus infeksiyasini erta aniqlash va profilaktika choralarini kuchaytirish (vaksinasiya, sanitariya-gigiena) muhimligini ko'rsatdi. Mutasaddi tashkilotlar va mutaxassislar orasidagi hamkorlik orqali kasallikning tarqalishini cheklash va bolalar salomatligini himoya qilish mumkin.

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QONNING SHAKLLI ELEMENTLARI

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Annotatsiya: Ushbu maqolada qonning shaklli elementlari — eritrotsitlar, leykotsitlar va trombositlarning gistologik tuzilishi, funksiyalari va ahamiyati tahlil qilinadi. Shuningdek, ushbu elementlarning rivojlanishi va organizmdagi roli haqida ma'lumotlar keltiriladi.

Kalit so'zlar: Qon, eritrotsitlar, leykotsitlar, trombositlar, gistologiya, gematopoez, immunitet, gemostaz

Annotation: This article analyzes the histological structure, functions, and significance of the formed elements of blood — erythrocytes, leukocytes, and thrombocytes. Additionally, information about the development of these elements and their role in the body is provided.

Keywords: Blood, erythrocytes, leukocytes, thrombocytes, histology, hematopoiesis, immunity, hemostasis.

Аннотация: В статье анализируются гистологическое строение, функции и значение форменных элементов крови — эритроцитов, лейкоцитов и тромбоцитов. Также приводятся сведения о развитии этих элементов и их роли в организме.

Ключевые слова: Кровь, эритроциты, лейкоциты, тромбоциты, гистология, гемопоэз, иммунитет, гемостаз.

Kirish

Qon organizmning muhim suyuqligi bo'lib, u turli hujayralar va plazmadan tashkil topgan. Qonning asosiy vazifalari orasida kislorod va karbonat anhidridni tashish, oziq moddalarni yetkazish, chiqindi mahsulotlarni chiqarish, immunitetni ta'minlash va tana haroratini boshqarish kiradi. Qonning shaklli elementlari — eritrotsitlar, leykotsitlar va trombositlar — ushbu funksiyalarning bajarilishida muhim rol o'ynaydi. Ushbu maqolada qonning shaklli elementlarining gistologik tuzilishi va funksiyalari batafsil tahlil qilinadi.

Tahlil va muhokama

Eritrotsitlar

Tuzilishi va morfologiyasi: Eritrotsitlar yoki qizil qon hujayralari inson qonining eng ko'p uchraydigan shaklli elementlari bo'lib, ularning soni erkaklarda 4,7-6,1 million/mm³, ayollarda esa 4,2-5,4 million/mm³ ni tashkil etadi. Ular yadro va organellalarga ega emas, bu esa ularga bikonkav shaklni saqlash va gaz almashinuvini samarali amalga oshirish imkonini beradi. Bikonkav shakl eritrotsitlarning yuzasi va hajmi nisbatini oshirib, kislorod va karbonat angidridni tashishda muhim rol o'ynaydi. Eritrotsitlarning diametri taxminan 7,5 mkm bo'lib, qalinligi 2 mkm ni tashkil etadi. Ularning sitoplazmasi gemoglobin bilan to'ldirilgan bo'lib, bu oqsil kislorod va karbonat angidridni bog'lash va tashishda ishtirok etadi.

Funktsiyalari: Eritrotsitlarning asosiy vazifasi kislorod va karbonat angidridni tashishdir. Nafas olish jarayonida o'pkada kislorod gemoglobin bilan bog'lanib, oksigemoglobin hosil qiladi. Bu eritrotsitlar orqali to'qimalarga yetkaziladi, u yerda kislorod ajralib chiqib, hujayralar tomonidan ishlatiladi. To'qimalarda hosil bo'lgan karbonat angidrid esa eritrotsitlar tomonidan yig'ilib, o'pkaga tashiladi va chiqarib yuboriladi. Bundan tashqari, eritrotsitlar qonning pH muvozanatini saqlashda ham ishtirok etadi.

Hayotiy sikli: Eritrotsitlar suyak iligida gematopoez jarayoni orqali hosil bo'ladi. Ularning rivojlanishi proeritroblastlardan boshlanib, eritroblastlar, normoblastlar va retikulotsitlar orqali o'tadi. Retikulotsitlar qon oqimiga chiqib, bir necha kun ichida yetuk eritrotsitlarga aylanadi. Eritrotsitlarning hayot davomiyligi taxminan 120 kun bo'lib, bu muddat tugagach, ular asosan taloq va jigarda makrofaglar tomonidan fagotsitoz qilinadi. Eritrotsitlarning parchalanishi natijasida hosil bo'lgan gemoglobin bilirubin va temirga ajraladi; temir qayta ishlatiladi, bilirubin esa jigar orqali safroga chiqariladi.

Klinik ahamiyati: Eritrotsitlar soni va sifatidagi o'zgarishlar turli kasalliklarning belgisi bo'lishi mumkin. Masalan, eritrotsitlar sonining kamayishi anemiya (kamqonlik) ga olib keladi, bu esa charchoq, zaiflik va bosh aylanishi kabi simptomlar bilan namoyon bo'ladi. Eritrotsitlar sonining ortishi esa polisitemiya deb ataladi va qonning quyuqlashishiga olib kelishi mumkin, bu esa tromboz xavfini oshiradi.

Leykotsitlar

Umumiy tavsif: Leykotsitlar yoki oq qon hujayralari immun tizimining asosiy tarkibiy qismi bo'lib, organizmni infeksiyalardan himoya qiladi. Ular ikki asosiy guruhga bo'linadi: granulotsitlar va agranulotsitlar.

Granulotsitlar

Neutrofillar: Neutrofillar leykotsitlarning eng ko'p uchraydigan turi bo'lib, ular qonning 60-70% ini tashkil etadi. Ularning yadro shakli ko'p bo'lakli bo'lib, sitoplazmalarida mayda, neytral bo'yaladigan granullarga ega. Neutrofillar bakterial infeksiyalarga qarshi kurashishda muhim rol o'ynaydi; ular fagotsitoz orqali patogen mikroorganizmlarni yutadi va yo'q qiladi. Neutrofillar suyak iligida hosil bo'lib, qon oqimida 6-10 soat davomida aylanadi, so'ngra to'qimalarga o'tib, o'z funksiyalarini bajaradi.

Eozinofillar: Eozinofillar leykotsitlarning 1-6% ini tashkil etadi. Ularning yadro shakli odatda ikki bo'lakli bo'lib, sitoplazmalarida eozinofil bo'yaladigan yirik granullarga ega. Eozinofillar parazitlar infeksiyalar va allergik reaksiyalarda ishtirok etadi; ular parazitlarga qarshi toksik moddalar chiqaradi va allergik yallig'lanish jarayonlarini boshqarishda yordam beradi.

Bazofillar: Bazofillar leykotsitlarning eng kam uchraydigan turi bo'lib, ular qonning taxminan 0,5-1% ini tashkil etadi. Ularning yadro shakli ikki bo'lakli yoki S shaklida bo'lib, sitoplazmalarida bazofil bo'yaladigan yirik granullarga ega. Bazofillar allergik reaksiyalarda va yallig'lanish jarayonlarida ishtirok etadi; ular histamin, serotonin va boshqa mediatorlarni chiqarib, qon tomirlarining kengayishiga va o'tkazuvchanligining oshishiga sabab bo'ladi.

Limfotsitlar: Limfotsitlar leykotsitlarning 20-50% ini tashkil etadi va immun javobning muhim tarkibiy qismidir. Ular kichik (6-9 mkm) va yirik (10-14 mkm) turlarga bo'linadi. Kichik limfotsitlar yadro va sitoplazma nisbati yuqori bo'lib, yadro deyarli butun hujayrani egallaydi. Yirik limfotsitlarda esa sitoplazma nisbatan ko'proq. Limfotsitlar B-limfotsitlar va T-limfotsitlarga bo'linadi. B-limfotsitlar suyak iligida rivojlanib, plazmatik hujayralarga aylanish orqali antitanachalar ishlab chiqaradi. T-limfotsitlar esa timusda yetiladi va hujayraviy immunitetni ta'minlaydi, ya'ni virus bilan zararlangan yoki o'sma hujayralarini yo'q qiladi.

Monotsitlar: Monotsitlar leykotsitlarning 2-10% ini tashkil etadi va eng yirik oq qon hujayralaridir (12-20 mkm). Ularning yadro shakli odatda loviya yoki at nalchasiga o'xshash bo'lib, sitoplazmasi kulrang-ko'k tusda. Monotsitlar qon oqimida 1-3 kun davomida aylanib, so'ngra to'qimalarga o'tib, makrofaglarga aylanadi.

Makrofaglar fagotsitoz orqali patogen mikroorganizmlar va o'lik hujayralarni yo'q qiladi, shuningdek, immun javobni boshqarishda ishtirok etadi.

Trombotsitlar

Tuzilishi va morfologiyasi: Trombotsitlar yoki qon plastinkalari yadroga ega bo'lmagan kichik hujayra bo'laklari bo'lib, diametri 2-4 mkm ni tashkil etadi. Ular megakaryotsitlar deb nomlanuvchi yirik suyak iligi hujayralarining sitoplazmatik bo'laklaridan hosil bo'ladi. Trombotsitlarning sitoplazmasida alfa-granulalar, zich granulalar va lizosomalar mavjud bo'lib, ular qon ivish jarayonida ishtirok etuvchi moddalarni saqlaydi.

Funktsiyalari: Trombotsitlarning asosiy vazifasi gemostaz jarayonida ishtirok etishdir. Qon tomiri shikastlanganda, trombotsitlar shikastlangan joyga yopishib, bir-biriga yopishadi va trombotsit tiqini hosil qiladi. Shuningdek, ular qon ivish kaskadini faollashtiruvchi moddalarni chiqarib, fibrin to'ring hosil bo'lishiga yordam beradi, bu esa qon ketishini to'xtatadi.

Hayotiy sikli: Trombotsitlar suyak iligida megakaryotsitlardan hosil bo'lib, qon oqimida taxminan 7-10 kun davomida aylanadi. Muddat tugagach, ular asosan taloq va jigarda makrofaglar tomonidan yo'q qilinadi.

Klinik ahamiyati: Trombotsitlar soni va funksiyasidagi o'zgarishlar turli kasalliklarning belgisi bo'lishi mumkin. Masalan, trombotsitlar sonining kamayishi (trombositopeniya) qon ketish xavfini oshiradi, trombotsitlar sonining ortishi (trombositoz) esa tromboz xavfini oshiradi.

Xulosa

Qonning shaklli elementlari — eritrotsitlar, leykotsitlar va trombotsitlar — organizmning normal faoliyati uchun muhim ahamiyatga ega. Ularning har biri o'ziga xos tuzilish va funksiyalarga ega bo'lib, umumiy sog'liqni saqlashda muhim rol o'ynaydi. Ushbu elementlarning gistologik xususiyatlarini tushunish tibbiyot va biologiya sohalarida muhim ahamiyatga ega.

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**O‘ZBEKISTON O‘SIMLIKLARIDAN OLINGAN DORIVOR MODDALAR:
KIMYOVIY TAHLIL VA FARMATSEVTIK IMKONIYATLAR**

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Annotatsiya: Mazkur maqolada O‘zbekiston hududida o‘sadigan dorivor o‘simliklardan ajratib olingan faol moddalarning kimyoviy tarkibi, ularning identifikatsiyasi va farmatsevtik jihatdan qo‘llanilish imkoniyatlari tahlil qilingan. Tadqiqotda asosan an‘anaviy tabobatda keng qo‘llanilgan o‘simliklar misolida ularning biologik faol birikmalari, ekstraktsiya usullari va laboratoriya sharoitida o‘rganish metodlari yoritilgan. Shuningdek, dorivor o‘simliklardan olingan tabiiy preparatlarning zamonaviy farmatsevtikada tutgan o‘rni va ularni dorilar ishlab chiqarishdagi salohiyati baholangan. Ushbu maqola O‘zbekistonning boy flora zaxiralaridan samarali foydalanish imkoniyatlarini ochib berishga qaratilgan.

Kalit so‘zlar: Dorivor o‘simliklar, faol moddalar, kimyoviy tahlil, farmatsevtika, biologik faol birikmalar, ekstraktsiya, an‘anaviy tabobat, o‘simlik xomashyosi, tabiiy preparatlar, fitoterapiya, farmakologik xususiyatlar, O‘zbekiston floras.

Kirish.

O‘zbekiston hududi o‘zining boy va xilma-xil o‘simlik dunyosi bilan ajralib turadi. Mamlakatning geobotanik hududlari — tog‘li, dasht, cho‘l va vodiqli mintaqalarda o‘sadigan minglab yovvoyi va madaniy o‘simlik turlari qadimdan xalq tabobatida keng qo‘llanib kelinadi. Ayniqsa, dorivor o‘simliklar xalq orasida davolovchi vosita sifatida qadrlanib, ularning foydali xususiyatlari avlodlardan avlodga o‘tib kelgan. Hozirgi zamon farmatsevtikasi esa ushbu an‘anaviy bilimlarni ilmiy asosda o‘rganish, dorivor o‘simliklardan olingan faol moddalarning kimyoviy tarkibini aniqlash va ularni dori vositalari sifatida amaliyotga tatbiq etishga alohida e‘tibor

qaratmoqda. Dorivor o'simliklardan olingan tabiiy birikmalar kam nojo'ya ta'sirga ega, organizmga mosligi va yuqori biologik faolligi bilan ajralib turadi. Shuning uchun ham zamonaviy tibbiyotda ularni farmakologik jihatdan chuqur tahlil qilish, tarkibidagi kimyoviy komponentlarni aniqlash va ulardan yangi preparatlar ishlab chiqish istiqbollari dolzarb ahamiyat kasb etmoqda. Ushbu maqolada O'zbekiston florasiga xos dorivor o'simliklardan ajratib olingan faol moddalarning kimyoviy xususiyatlari, ularni ajratib olish usullari va farmatsevtik sohada qo'llanish imkoniyatlari ko'rib chiqiladi.

Asosiy qism.

O'zbekistonning tabiatida o'sgan dorivor o'simliklar turlari, ularning kimyoviy tarkibi, va farmatsevtik salohiyati yuqori ilmiy qiziqish uyg'otmoqda. Mamlakat hududining turli geografik mintaqalari, iqlimi va geologik tuzilishi uning o'simlik dunyosining xilma-xilligini ta'minlaydi. Shuning uchun, O'zbekistonda o'sgan dorivor o'simliklarning kimyoviy tarkibini va ularning farmatsevtik imkoniyatlarini o'rganish, zamonaviy tibbiyotda ularning salohiyatini yanada kengroq qo'llash imkoniyatlarini ochadi. Dorivor o'simliklar va ularning kimyoviy tarkibi. Dorivor o'simliklarning kimyoviy tarkibi turli biologik faol moddalar — alkaloidlar, flavonoidlar, terpenoidlar, saponinlar, taninlar, vitaminlar va minerallarni o'z ichiga oladi. Ushbu birikmalar o'simliklarning tibbiy xususiyatlarini belgilaydi va ularning shifo beruvchi ta'sirini ta'minlaydi. Masalan, chaqon (*Althaea officinalis*) o'simligi mukolitik xususiyatlarga ega bo'lib, nafas yo'llarini tozalashda ishlatiladi. Ushbu o'simlikdagi mukilajin va saponinlar tarkibidagi moddalar bronxlar va nafas yo'llarini yumshatib, ularning yallig'lanishini kamaytiradi. Bundan tashqari, sarik o'simligi (*Hypericum perforatum*), ya'ni giperik o'simligi, flavonoidlar va terpenoidlar kabi biologik faol moddalar bilan boyitilgan bo'lib, depressiya va asab tizimi kasalliklarini davolashda qo'llaniladi.

Uning tarkibidagi hypericin va hyperforin moddalarining farmakologik faolligi, ularning aqliy holatni yaxshilashdagi ta'siri va stressni kamaytirishdagi roli klinik tadqiqotlar orqali tasdiqlangan. Ekstraktsiya usullari va faol moddalarning ajratilishi. Dorivor o'simliklardan faol moddalarni ajratib olish uchun turli ekstraktsiya usullari qo'llaniladi. Eng ko'p ishlatiladigan metodlar orasida suvli, etanol, metanol va xlorofom kabi organik erituvchilar yordamida ekstraktsiya qilish usullari mavjud. Har bir o'simlikdan eng samarali ekstrakt olish uchun ularning o'ziga xos kimyoviy tarkibi va o'simlikning o'sish sharoitlari hisobga olinadi. Etanol ekstrakti — bu ko'plab

o'simliklardan faol moddalarning ajratilishi uchun eng samarali metodlardan biridir. Etanol yordamida olingan ekstraktlar o'simlikdagi flavonoidlar, alkaloidlar, terpenoidlar va boshqa faol moddalarni samarali ajratib olish imkonini beradi. Masalan, tuxum o'simligi (*Echinacea purpurea*) ekstraktlari, etanol yordamida olingan, immun tizimini mustahkamlashda qo'llaniladi va uning tarkibidagi echinacoside moddalari antibakterial va yallig'lanishga qarshi ta'sir ko'rsatadi.

Farmatsevtik imkoniyatlar. Dorivor o'simliklardan olingan ekstraktlar va faol moddalarning farmatsevtikada qo'llanilishi juda keng. O'zbekistonning o'ziga xos florasida, ayniqsa, fitoterapiya sohasida keng qo'llaniladigan tabiatda mavjud bo'lgan dorivor o'simliklarni ishlab chiqarishda katta imkoniyatlarga ega. Zamonaviy farmatsevtik tadqiqotlar dorivor o'simliklardan olingan tabiiy moddalarning samaradorligini oshirish uchun ularni sintetik va tabiiy birikmalar bilan birlashtirish imkoniyatlarini o'rganmoqda. Masalan, sovaldi (*Silybum marianum*) o'simligidan olingan silimarin moddasi jigarni himoya qilishda va uning tiklanishida samarali ishlatiladi. Bu o'simlikdan olingan faol modda jigar kasalliklari, oziqlanish buzilishlari va toksik moddalar bilan zaharlanishda keng qo'llaniladi. Bundan tashqari, sher o'rmoni (*Glycyrrhiza glabra*), ya'ni lakrits o'simligi, uning tarkibidagi glycyrrhizin moddasining antimikrobial va yallig'lanishga qarshi ta'sirini hisobga olgan holda, keng turdagi dori vositalarida qo'llaniladi. Lakrits o'simligi an'anaviy tibbiyotda qizilo'ngach va oshqozon yaralari davolashda ishlatilgan, hozirda esa zamonaviy farmatsevtika uning faol tarkibiy qismlarini dori vositalarida keng qo'llamoqda. O'zbekiston dorivor o'simliklarining kelajakdagi istiqbollari. O'zbekistonning tabiiy resurslari o'zining boy florasida bilan yanada rivojlanish uchun katta imkoniyatlarga ega. Dorivor o'simliklardan olingan moddalar nafaqat an'anaviy tibbiyotda, balki farmatsevtika sohasida ham yangi davolash usullarini yaratish uchun foydalanilishi mumkin. O'zbekiston florasining o'simlik turlaridan samarali foydalanish uchun ilmiy tadqiqotlar va laboratoriya ishlari davom ettirilmoqda. Bunday tadqiqotlar dorivor o'simliklarning tarkibidagi faol moddalarning yangi turlarini aniqlashga, ularning farmakologik xususiyatlarini o'rganishga va samarali dori vositalarini ishlab chiqishga yordam beradi.

Xulosa:

O'zbekiston o'simliklaridan olingan dorivor moddalar, ularning kimyoviy tarkibi va farmatsevtik imkoniyatlari zamonaviy tibbiyot va farmatsevtikada katta

ahamiyatga ega. O‘zbekistonning boy flora resurslari an‘anaviy tabobat va fitoterapiya sohalarida keng qo‘llanilayotgan dorivor o‘simliklar bilan ajralib turadi. Ushbu o‘simliklardan ajratilgan faol moddalarning kimyoviy tarkibi va ularning biologik faolligi keng miqyosda o‘rganilmoqda. Farmatsevtik tadqiqotlar dorivor o‘simliklardan olingan tabiiy moddalarning samaradorligini oshirish va ulardan yangi dori vositalarini yaratish imkoniyatlarini ko‘rib chiqmoqda. Ekstraktsiya usullari va o‘simliklardan faol moddalarni ajratish texnologiyalari rivojlanib, ularning farmakologik xususiyatlari yaxshilanmoqda. O‘zbekiston florasidagi o‘simliklardan olingan moddalar zamonaviy dori vositalarining samaradorligini oshirishga yordam beradi va tabiiy terapiya metodlarini yanada rivojlantiradi. Shu bilan birga, O‘zbekiston o‘simliklaridan olingan faol moddalarning farmatsevtik salohiyatini to‘liq amalga oshirish uchun yanada kengroq ilmiy tadqiqotlar va laboratoriya ishlari zarur. Ularni farmatsevtikada qo‘llash orqali yangi davolash usullarini yaratish, o‘simliklar asosidagi dori vositalarini ishlab chiqish va ularning xalq salomatligini yaxshilashdagi o‘rni yanada mustahkamlanadi.

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РОЛЬ МЕЖДУНАРОДНЫХ ТРАНСПОРТНЫХ СОГЛАШЕНИЙ И ОРГАНИЗАЦИЙ В ФОРМИРОВАНИИ ГЛОБАЛЬНОГО РЫНКА УСЛУГ

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Аннотация: В данной статье рассматривается влияние международных транспортных соглашений и специализированных организаций на развитие и стандартизацию глобального рынка транспортных услуг. Исследование подчеркивает, как институциональные механизмы — от соглашений ВТО до многосторонних транспортных коридоров — формируют логистическую инфраструктуру, обеспечивают прозрачность и способствуют устойчивому росту. Особое внимание уделяется анализу участия развивающихся стран, включая страны СНГ, в международных инициативах, таких как TRACECA, BRI и договоренности в рамках ШОС. Используются официальные отчёты, базы данных и примеры соглашений, чтобы выделить основные результаты и вызовы.

Ключевые слова: международные соглашения, транспортные организации, логистика, ВТО, TRACECA, международный рынок, мультимодальные перевозки, глобализация, стандартизация, интеграция.

Введение

Международный рынок транспортных услуг является фундаментом глобальной экономики, связывая производителей, потребителей и торговые центры по всему миру. Эффективность и устойчивость этой системы во многом зависят от качества нормативно-правовой базы и координации между странами. Международные соглашения и организации играют решающую роль в упрощении процедур, снижении торговых барьеров и стандартизации логистических процессов.

С развитием глобализации и цифровизации транспортная инфраструктура требует согласованных правил игры и единых стандартов, особенно в контексте мультимодальных перевозок. Роль организаций — таких как Всемирная торговая организация (ВТО), Международная морская организация (ИМО), Организация сотрудничества железных дорог (ОСЖД), а также многосторонние инициативы

— становится ключевой для обеспечения безопасности, прозрачности и устойчивости цепей поставок.

Цель статьи — исследовать, каким образом данные институциональные структуры способствуют формированию и регулированию глобального рынка транспортных услуг и какие существуют вызовы для дальнейшего совершенствования механизмов международного взаимодействия.

Обзор литературы

Современная научная литература и аналитические отчёты подчёркивают важность международных соглашений и организаций в развитии транспортной инфраструктуры. По данным UNCTAD (2023), международные соглашения по упрощению торговых процедур и логистике обеспечивают до 15% роста эффективности поставок. Работы Ж. Родрига (2022) и К. Ван Хуффеля (2021) подтверждают, что устойчивый рост глобальных цепей поставок напрямую зависит от уровня институциональной согласованности между странами.

Важную роль играет Всемирная торговая организация (ВТО), которая через Соглашение о содействии торговле (Trade Facilitation Agreement, 2017) способствует упрощению таможенных процедур и прозрачности логистических процессов. Помимо этого, региональные инициативы, такие как TRACECA (Транспортный коридор Европа — Кавказ — Азия), Belt and Road Initiative (Китай), а также соглашения в рамках Шанхайской организации сотрудничества (ШОС), служат примерами успешной многосторонней интеграции.

Международная морская организация (ИМО) разрабатывает технические и экологические стандарты для судоходства, в то время как ОСЖД координирует железнодорожное сотрудничество между странами Восточной Европы и Азии. Эти организации не только стандартизируют технические аспекты перевозок, но и способствуют обмену данными, унификации тарифов и интеграции цифровых платформ.

Таким образом, литература указывает на высокую значимость международных институций в регулировании и развитии мирового транспортного рынка, при этом подчеркивается необходимость дальнейшей гармонизации правил и расширения участия развивающихся стран.

Методология

Для проведения исследования использовались методы качественного и количественного анализа. Основу эмпирической части составили отчёты

международных организаций (ВТО, UNCTAD, IMO), статистические базы данных Всемирного банка и TRACECA, а также сравнительный анализ конкретных транспортных соглашений, действующих в Евразийском регионе.

Метод сравнительного анализа позволил выявить отличия в эффективности и охвате различных соглашений, включая двусторонние и многосторонние форматы. Контент-анализ документов ВТО и ШОС предоставил возможность оценить юридические и процедурные аспекты взаимодействия между странами-участниками.

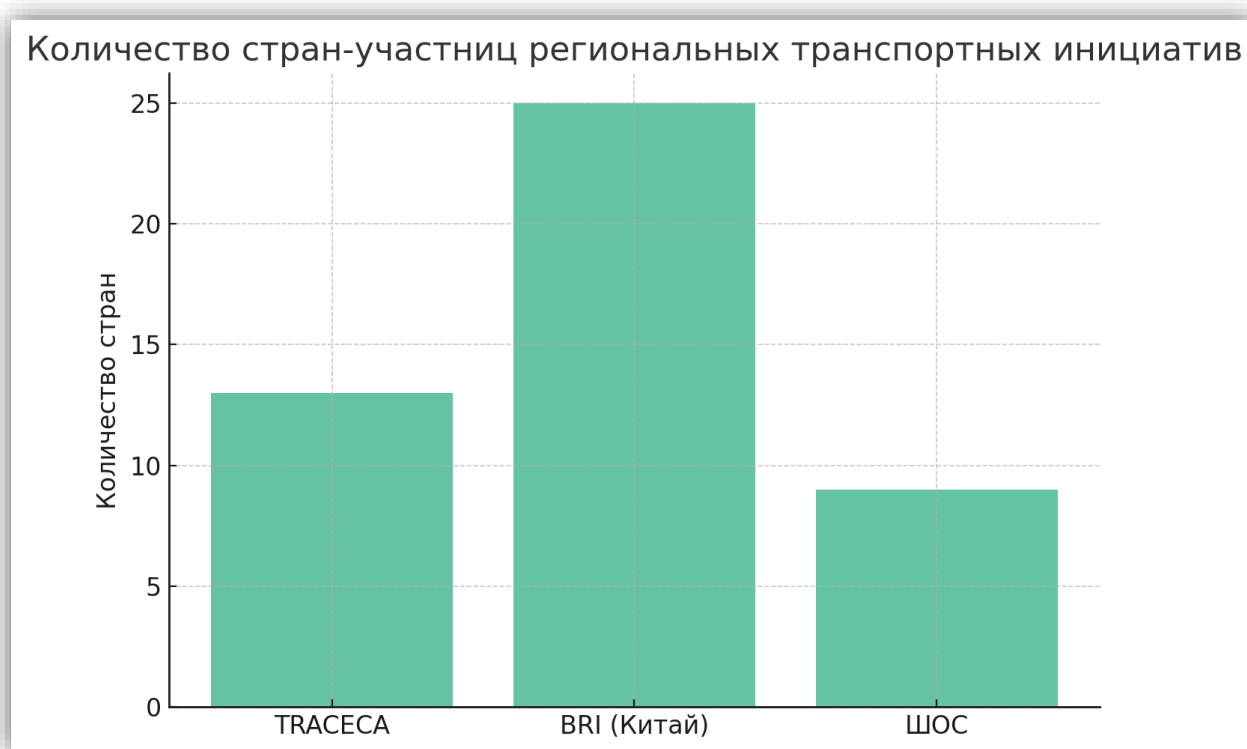
В рамках работы были изучены примеры интеграции транспортных политик в рамках Европейского союза, TRACECA и инициативы «Один пояс — один путь». Также использовались аналитические обзоры деятельности международных организаций, нормативно-правовые акты и экспертные заключения, опубликованные в профильных журналах за период с 2018 по 2024 год.

Визуализация данных осуществляется с помощью таблиц и диаграмм, отражающих динамику внедрения соглашений, долю участия стран в региональных инициативах и основные барьеры в международной координации транспортных процессов.

Результаты

Анализ показал, что участие в региональных транспортных инициативах значительно варьируется. Согласно первой диаграмме, в инициативе TRACECA участвуют 13 стран, в китайской инициативе "Один пояс — один путь" — 25, а в рамках ШОС — 9 стран. Эти различия отражают как геополитические приоритеты, так и различия в инфраструктурной готовности стран.

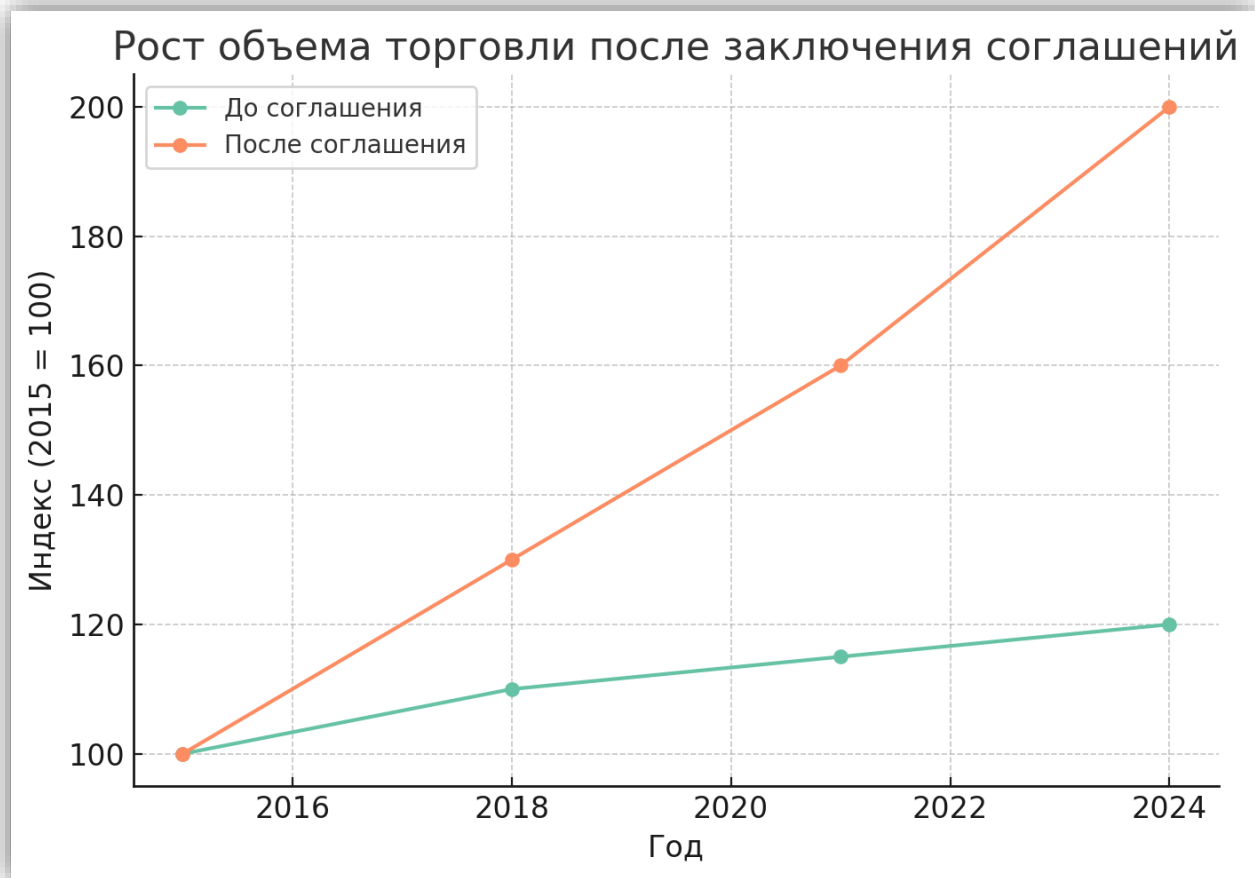
Диаграмма №1. Количество Стран-Участниц Региональных Транспортных Инициатив



[4]

На второй диаграмме представлен рост внешней торговли после подписания транспортных соглашений. Наблюдается явный рост: если индекс до подписания соглашений оставался на уровне 100–120 пунктов, то после — достиг 200 пунктов в 2024 году. Это свидетельствует о позитивном влиянии соглашений на торговую активность стран-участниц.

Диаграмма №2. Рост Объема Торговли После Заключения Соглашений



[2]

Анализ таблицы с основными барьерами выявил, что самым распространённым препятствием являются сложные таможенные процедуры — с ними сталкиваются 62% стран. Недостаток финансирования мешает 55% стран внедрять инфраструктурные решения, а несовместимость стандартов затрудняет работу 48% участников. Также 41% стран отметили ограниченный обмен данными как фактор, тормозящий интеграцию. Эти результаты подтверждают необходимость не только заключения соглашений, но и активной координации их реализации, в том числе через цифровизацию и институциональное сближение.

Диаграмма №3. Основные Барьеры При Реализации Соглашений

№	Вызов	Процент стран, испытывающих трудности (%)

1	Несовместимость стандартов	48
2	Недостаток финансирования	55
3	Сложные таможенные процедуры	62
4	Ограниченный обмен данными	41

[3]

В целом, представленные данные демонстрируют, что международные транспортные соглашения и участие в региональных инициативах оказывают положительное влияние на рост торговли и развитие логистической инфраструктуры. Однако наличие институциональных и технических барьеров подчеркивает необходимость комплексного подхода к реализации соглашений, включая стандартизацию, финансирование и цифровую трансформацию процессов.

Обсуждение

Полученные результаты позволяют сделать важные выводы о реальной роли международных соглашений и организаций в формировании устойчивого и эффективного глобального транспортного пространства. Участие стран в таких инициативах, как TRACECA, BRI и ШОС, не только расширяет торговые возможности, но и способствует институциональному сближению на международном уровне. Согласованные процедуры, упрощённые логистические маршруты и единые технические стандарты позволяют значительно снизить транзакционные издержки и время доставки товаров.

Однако анализ также выявил комплексные вызовы, которые тормозят реализацию соглашений. Прежде всего — это недостаточная совместимость национальных стандартов и регуляторных режимов. В условиях, когда каждая страна имеет собственные технические требования, процесс интеграции затягивается, особенно в сферах, связанных с цифровыми решениями, таможенными данными и экологическими нормами.

Другим существенным барьером является нехватка финансирования. Многие развивающиеся страны, несмотря на подписанные соглашения, не обладают достаточными ресурсами для модернизации инфраструктуры, цифровизации логистических процессов и внедрения необходимых стандартов. Это создает дисбаланс между участниками соглашений и ограничивает эффективность многостороннего сотрудничества.

Проблема сложных таможенных процедур остаётся актуальной: несмотря на поддержку ВТО и иных организаций, 62% стран по-прежнему сталкиваются с бюрократическими препятствиями, что негативно сказывается на скорости перемещения товаров. Введение единых цифровых таможенных платформ может стать решением, однако для этого требуется согласованная политическая воля и технологическая совместимость.

Наконец, ограниченный обмен данными между странами ослабляет аналитическую основу для принятия решений и снижает прозрачность операций. Повышение уровня доверия и защита данных должны стать приоритетами в будущем развитии соглашений.

Таким образом, международные транспортные соглашения и организации обладают огромным потенциалом, однако для их полной реализации необходима институциональная координация, технологическая совместимость и финансовая поддержка. Только при наличии этих условий можно рассчитывать на устойчивое формирование единого глобального рынка транспортных услуг.

Заключение

Международные транспортные соглашения и организации играют важнейшую роль в формировании эффективной, безопасной и устойчивой системы глобальных перевозок. Исследование показало, что многосторонние инициативы, такие как TRACECA, BRI и соглашения в рамках ВТО, значительно способствуют росту торговли и улучшению логистической инфраструктуры.

В то же время, наличие институциональных барьеров, нехватка финансирования и ограниченность обмена данными требуют особого внимания. Для достижения максимального эффекта от международных соглашений необходимо не только их подписание, но и реальное исполнение, подкреплённое цифровизацией, стандартизацией и международным сотрудничеством.

Будущее глобального транспортного рынка зависит от способности стран к координации усилий, внедрению инноваций и созданию равных условий участия для всех участников. Только в этих условиях можно обеспечить устойчивый рост и доступность транспортных услуг на международном уровне.

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MUSTAQILLIK VA DIN

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ANNOTATSIYA:

Ushbu maqolada O'zbekiston Respublikasida mustaqillik yillarida din sohasida olib borilgan islohotlar, din erkinligi, konfessiyalararo totuvlik va diniy bag'rikenglik masalalari tahlil etiladi. Mustaqillik tufayli fuqarolarning vijdon erkinligi, diniy e'tiqod huquqi kafolatlangani, diniy tashkilotlarning erkin faoliyat yuritishi uchun qonuniy asoslar yaratilgani ochib beriladi. Maqolada, shuningdek, diniy qadriyatlarning jamiyat rivojiga ta'siri, yoshlar tarbiyasidagi o'rni va ekstremizm tahdidlariga qarshi kurashishda ijtimoiy ong va madaniyatning ahamiyati ko'rsatiladi. Tarixiy va zamonaviy ma'lumotlar asosida O'zbekistonda din va davlat munosabatlarining muvozanatli modeli yoritiladi.

Kalit so'zlar: Mustaqillik, din erkinligi, vijdon erkinligi, diniy bag'rikenglik, diniy tashkilotlar, ekstremizm, O'zbekiston, ijtimoiy ong, huquqiy islohotlar, davlat va din.

АБСТРАКТНЫЙ:

В данной статье анализируются реформы в области религии, проведённые в Республике Узбекистан в годы независимости, вопросы религиозной свободы, межконфессионального согласия и религиозной терпимости. Подчеркивается, что благодаря независимости обеспечены права граждан на свободу совести и религиозных убеждений, а также созданы законные основы для свободной деятельности религиозных организаций. В статье также рассматривается влияние религиозных ценностей на развитие общества, их роль в воспитании молодежи и значимость социального сознания и культуры в борьбе с угрозами экстремизма. На основе исторических и современных данных освещается сбалансированная модель отношений между религией и государством в Узбекистане.

Ключевые слова: Независимость, Свобода вероисповедания, Свобода совести, Религиозная толерантность, Религиозные организации, Экстремизм, Узбекистан, Общественное сознание, Правовые реформы, Государство и религия

ABSTRACT:

This article analyzes the reforms in the field of religion carried out in the Republic of Uzbekistan during the years of independence, as well as issues of religious freedom, interfaith harmony, and religious tolerance. It highlights that, due to independence, the freedom of conscience and the right to religious belief of citizens have been guaranteed, and legal foundations have been established for the free activity of religious organizations. The article also discusses the impact of religious values on the development of society, their role in the upbringing of youth, and the importance of social consciousness and culture in the fight against the threats of extremism. Based on historical and modern data, the balanced model of relations between religion and the state in Uzbekistan is also outlined.

Key words: Independenc, Freedom of religion, Freedom of conscience, Religious tolerance, Religious organizations, Extremism, Uzbekistan, Social consciousness, Legal reforms, State and religion

Kirish

O‘zbekiston Respublikasining mustaqillikka erishgani xalqimiz tarixidagi eng muhim voqealardan biri bo‘ldi. Bu voqea nafaqat siyosiy, balki ma’naviy hayotimizda ham tub burilish yasadi. Jumladan, din erkinligi va vijdon erkinligi kabi inson huquqlari mustahkam konstitutsiyaviy asosga ega bo‘ldi.

Asosiy qism

Mustaqillik va vijdon erkinligi

1991-yilda O‘zbekiston Respublikasi mustaqilligini e’lon qilgach, Konstitutsiyada har bir fuqaroning vijdon erkinligi, ya’ni o‘z e’tiqodiga ko‘ra diniy marosimlarni bajara olish huquqi kafolatlandi (O‘zbekiston Respublikasi Konstitutsiyasi, 31-modda). Shuningdek, 1998-yilgi “Vijdon erkinligi va diniy

tashkilotlar to‘g‘risida”gi Qonun asosida diniy tashkilotlar faoliyat yuritishi qonuniylashtirildi.

Unga rioya qilish hozirgi zamon xalqaro huquqining asosiy vazifasidir. Davlatning suvereniteti uning boshqa davlatlar bilan munosabatlaridagi mustakilligini ham bildiradi. Mustaqil davlatning faqat siyosiy emas, balki iqtisodiy mustaqilligini ham anglatadi.

Mustaqillik insoniyatning azaldan orzu-umidi bo‘lib kelgan. Ana shu g‘oya asosida AQSH, Fransiya, Lotin Amerikasi mamlakatlarida inqiloblar yuz berdi. XX asrning 90-yillariga kelib sotsialistik mamlakatlarda inson huquqlarini himoya qilish va ozodlikka intilishning yangi bosqichi boshlandi. Sharqiy Yevropa mamlakatlarida qariyb yarim asr hukm surgan totalitar davlat tuzumi inqirozga yuz tutib, demokratik tartibotlar qaror topa boshladi. Yugoslaviya Sotsialistik Federativ Respublikasi parchalanib, uning o‘rnida bir necha mustaqil respublika, Chexoslovakiya Sotsialistik Respublikasi ikkiga bo‘linib, Chexiya va Slovakiya suveren davlatlari vujudga keldi.

Mustaqillik imkoniyatlarini oldindan payqagan, mamlakat ijtimoiysiyosiy jarayonlarining borishini to‘g‘ri kuzatib, to‘g‘ri baholay bilgan O‘zbekiston ittifoqdoshlari orasida birinchilardan bo‘lib, o‘z mustaqilligini e‘lon qildi: 1991-yil 31-avgust kuni kabul kilingan O‘zbekiston Respublikasining Davlat mustaqilligi to‘g‘risidagi Bayonot O‘zbekiston hukumatining siyosiy yo‘lini to‘la qonunlashtirib berdi. 1991-yilning avgustida „O‘zbekiston Respublikasining Davlat mustaqilligi asoslari to‘g‘risida“gi qonun qabul qilindi va ana shu qonun doirasida O‘zbekiston Respublikasi Oliy Kengashining bundan keyin O‘zbekiston SSRni O‘zbekiston Respublikasi deb atashdi.

Iqtisodiyotda tub o‘zgarishlar qilish uchun imkoniyat yaratildi. Ya’ni jahon amaliyoti isbotlagan bozor iqtisodiyotiga o‘tish uchun sharoit barpo etildi. Mulkka munosabat tubdan o‘zgarib, jamiyatda yangi mulkdorlar sinfini shakllantirish uchun imkon ochildi.

Diniy qadriyatlarning tiklanishi va rivoji

Mustaqillik yillarida diniy qadriyatlarimiz, jumladan, islom dini an‘analari tiklandi. Masjidlar, madrasalar va diniy ilm-fan markazlari qayta tiklanib, faoliyat

ko'rsatmoqda. Hazrat Imom, Mir Arab madrasalari, Imom Buxoriy va Imom Termiziy ilmiy markazlari diniy-ma'rifiy ishlarning rivojiga xizmat qilmoqda.

Diniy bag'rikenglik va konfessiyalararo totuvlik

Barcha patriarxal dinlar bir g'oyani ilgari surishadi: olam va odamlarni ikkiga, biri muqaddas, boshqasi kufr bo'lgan qismlarga bo'lish. Din odatda hech kim tomonidan kuzatilmaydigan va aniqlanmaydigan, g'ayritabiiy, muqaddas, eng yuqori shaxs yoki mavjudotga fokuslangan o'zak e'tiqod ustiga qurilgan ijtimoiy tizim, deb ham ta'riflanadi.

An'analar, qadriyatlar, institutlar, rituallar va diniy matnlar o'zak e'tiqod bilan bog'liq ko'riladi, va bulardan ba'zilar sekyular falsafa bilan mos tushmasligi mumkin. Dinni shuningdek „turmush tarzi“ ham deyishadi.

Dinlarning kelib chiqishi turli madaniyatlarda turlicha kechgan. Ayrim dinlar ijtimoiy tartibni belgilab kelgan bo'lsa, boshqalari insonning ichki kechinmalari va ruhiyatini tartibga solishni ko'zlaydi.

„Din“ so'zini ba'zi hollarda „e'tiqod“ ma'nosida ham qo'llashadi, lekin bu doim o'rinli emas, zero e'tiqod shaxsiy ishonchdan iboratdir, aslo ijtimoiy tizim emas.

Din – xudo yoki xudolar, g'ayritabiiy kuchlar mavjudligiga ishonish. Din muayyan ta'limotlar, his-tuyg'ular, toat-ibodatlar va diniy tashkilotlarning faoliyatlari orqali namoyon bo'ladigan, olam, hayot yaratilishini tasavvur qilishning alohida tarzi, uni idrok etishning o'ziga xos usuli. Dinning paydo bo'lishi haqida yagona fikr yo'q. Islom dini ta'limotiga ko'ra, din – Alloh tomonidan o'z payg'ambarlari orqali bashariyat olamiga joriy etilajagi zarur bo'lgan ilohiy qonunlardir. Tabiat va insonni yaratgan, ayni vaqtda insonga to'g'ri, haqiqiy hayot yo'lini ko'rsatadigan va o'rgatadigan ilohiy qudratga ishonchni ifoda etadigan ta'limotdir.

O'zbekistonda turli diniy konfessiyalar tinch-totuv yashamoqda. Pravoslav, katolik, yahudiy va boshqa diniy jamoalar davlat tomonidan ro'yxatdan o'tkazilib, faoliyat yuritishmoqda. Davlat ularning diniy marosimlarini ado etishiga, ibodatxonalar qurishiga sharoit yaratmoqda.

Ekstremizm va radikalizmga qarshi kurash

Mustaqillik yillarida ekstremistik g'oyalarning tarqalishiga qarshi huquqiy va ma'rifiy kurash usullari shakllantirildi. Diniy sohadagi muvozanatli siyosat yoshlarning sog'lom e'tiqodda tarbiyalanishiga xizmat qilmoqda. OAV va ijtimoiy tarmoqlar orqali diniy savodsizlikka qarshi kurash olib borilmoqda.

1991-yil 1-sentabrda O'zbekiston o'z mustaqilligini e'lon qilgach, davlat hayotining barcha jabhalarida, jumladan diniy erkinlik va ma'naviyat sohasida ham yangi davr boshlandi. Ilgari diniy faoliyat cheklangan bo'lsa, mustaqillikdan keyin u erkinlikka yo'l ochdi. Mustaqillik davrida din sohasidagi o'zgarishlar Konstitutsiyaviy kafolatlar: O'zbekiston Respublikasi Konstitutsiyasi (1992-yil): 31-modda: Har bir inson vijdon erkinligiga ega. 18-modda: Har kim millati, dini, e'tiqodidan qat'i nazar, teng huquqlidir. Huquqiy asoslar: 1998-yil "Vijdon erkinligi va diniy tashkilotlar to'g'risida"gi Qonun qabul qilindi. Bu qonun diniy tashkilotlar ochish, ro'yxatdan o'tkazish, diniy marosimlarni ado etish kabi masalalarni tartibga soldi. Din va ma'naviyat uyg'unligi Mustaqillikdan so'ng: Diniy qadriyatlar tiklandi. Masjidlar, ziyoratgohlar, madrasalar ta'mirlandi yoki yangidan qurildi. Diniy ma'rifat, sabr-toqat, halollik, bag'rikenglik targ'ib qilina boshladi. Misollar: Hazrati Imom majmuasi, Imom Buxoriy majmuasi, Imom Termiziy markazi faoliyati kengaydi. O'zbekiston musulmonlari idorasi faoliyati mustahkamlandi. Diniy bag'rikenglik va millatlararo totuvlik O'zbekistonda 16 dan ortiq diniy konfessiyalar faoliyat yuritadi. Nasroniy, yahudiy, buddist jamoalari qonuniy asosda erkin ibodat qilmoqda. Diniy asosda nizolar emas, balki hamjihatlik va totuvlik ustuvor hisoblanadi. Ekstremizmga qarshi kurash va diniy savodxonlik Mustaqillik bilan birga dunyodagi ekstremistik va terroristik harakatlar xavfi ham kuchaydi. O'zbekiston bu borada: Ekstremistik g'oyalarga qarshi diniy ma'rifat va huquqiy tushuntirish ishlariga alohida e'tibor qaratdi. Diniy ta'lim muassasalari orqali asliy islom — tinchlik, bag'rikenglik va ilmiy tafakkur dini sifatida tushuntirilmoqda. Ijtimoiy ong va vijdon erkinligi Mustaqillik fuqarolarga: O'z e'tiqodi bo'yicha erkin yashash, Diniy marosimlarni erkin ado etish, Ammo bu erkinlikni boshqalarning huquqiga zarar yetkazmaydigan tarzda amalga oshirish imkonini berdi. Din va davlat munosabatlari O'zbekistonda davlat va din ajratilgan, ya'ni davlat diniy tashkilotlarga aralashmaydi. Ammo din jamiyatning ajralmas qismi sifatida ma'naviy hayotda faol ishtirok etadi. Din — siyosiy vosita emas, balki ma'naviyat va axloqiy tarbiyaning manbai sifatida qoraladi.

Xulosa

O‘zbekistonning mustaqillikka erishishi din sohasida katta imkoniyatlar yaratdi. Bugungi kunda fuqarolarning diniy erkinliklari kafolatlangan, diniy qadriyatlar asrayapti, diniy bag‘rikenglik tamoyillari mustahkamlanmoqda. Davlat va din o‘rtasidagi hamkorlik — ijtimoiy barqarorlik, millatlararo totuvlik va taraqqiyotning muhim omilidir. Mustaqillik tufayli O‘zbekistonda din sohasida erkinlik, ochiqlik va bag‘rikenglik muhitiga erishildi. Bugungi kunda: Diniy tashkilotlar qonuniy faoliyat yuritmoqda, Vijdon erkinligi kafolatlangan, Din — tinchlik, totuvlik, ma’naviyat targ‘ibotchisiga aylandi.

Foydalanuvchi adabiyotlar;

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MAMLAKATIMIZDA INTELLEKTUAL MULK VA UNI SHAKLLANTIRISH

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Annotatsiya. Ushbu maqolada O‘zbekistonda intellektual mulk tizimining joriy holati, uning huquqiy asoslari va ularni rivojlantirish istiqbollari tahlil qilingan. Mamlakatimizda intellektual mulkni shakllantirish va himoya qilish jarayonlarining asosiy yo‘nalishlari, mavjud muammolar va ularni hal etish yo‘llari ko‘rib chiqilgan. Tadqiqot natijalariga ko‘ra, O‘zbekistonda intellektual mulk tizimini yanada takomillashtirish bo‘yicha bir qator amaliy tavsiyalar ishlab chiqilgan.

Kalit so‘zlar: intellektual mulk, patent, mualliflik huquqi, innovatsiya, litsenziyalash, huquqiy tartibga solish, texnopark.

Kirish. Bugungi kunda global iqtisodiyotda intellektual mulkning ahamiyati tobora ortib bormoqda. Innovatsiyalar, ijodiy ishlar va ilmiy yutuqlarning huquqiy himoyasi rivojlanayotgan mamlakat uchun strategik ahamiyatga ega bo‘lib, O‘zbekiston uchun ham bu sohani rivojlantirish muhim vazifalardan biriga aylangan. Ularni huquqiy himoya qilish va samarali boshqarish tizimini yaratish O‘zbekistonning jahon bozoriga integratsiyalashuvi, xalqaro hamkorlikni kuchaytirish va innovatsion iqtisodiyotni rivojlantirish uchun asosiy omillardan biridir.

O‘zbekistonda amalga oshirilayotgan keng ko‘lamli iqtisodiy islohotlar va “2022-2026 yillarga mo‘ljallangan Yangi O‘zbekistonning taraqqiyot strategiyasi to‘g‘risida”[1]gi Farmoni bilan bevosita bog‘liq. Ushbu strategiyada intellektual mulk sohasini rivojlantirish, innovatsion faoliyatni rag‘batlantirish va ilm-fan yutuqlarini amaliyotga joriy etish masalalari alohida ta’kidlangan. Shu bilan birga, O‘zbekistonning Jahon savdo tashkilotiga a’zo bo‘lish jarayonida intellektual mulk himoyasi tizimini xalqaro standartlarga muvofiqlashtirish zarurati ham dolzarb muammolardan biri hisoblanadi.

Mamlakatimizda huquqiy bazani yanada mustahkamlash, intellektual mulk obyektlarini himoya qilish tizimini xalqaro talablar darajasiga olib chiqish, shuningdek, ixtirochilar va mualliflar huquqlarini samarali himoya qilish maqsadida qator farmon va qarorlarni qabul qilmoqda. Jumladan, O'zbekiston Respublikasi Prezidentining "Intellektual mulk sohasini yanada rivojlantirishga oid qo'shimcha chora-tadbirlar to'g'risida"[2]gi Qarorida mamlakatda iqtisodiyot tarmoqlariga intellektual faoliyat natijalari va innovatsiyalarni joriy etish mexanizmlarini takomillashtirish, mintaqaviy brendlarni yaratish, kontrafakt mahsulotlar realizatsiyasining oldini olish, intellektual mulkning ishonchli huquqiy himoyasini ta'minlash borasida izchil chora-tadbirlar amalga oshirish maqsad qilib qo'yilgan.

O'zbekistonda intellektual mulk tizimi so'nggi yillarda sezilarli darajada takomillashtirilgan bo'lsa-da, bu sohadagi qonunchilik bazasi va amaliy mexanizmlarni yanada rivojlantirish, intellektual mulk obyektlarini samarali himoya qilish va tijoratlashtirish uchun zarur sharoitlar yaratish dolzarb masala bo'lib qolmoqda.

Mavzuga oid adabiyotlar tahlili

Mavzuga oid ko'plab xorijiy va mahalliy olimlarimizning imiy ishlari o'rganildi. Jumladan, Wenwei Guan "Intellectual property theory and practice"[5] nomli kitobida Xitoyning intellektual mulk huquqlarining savdo-sotiq aspektlari to'g'risidagi bitimga (TRIPS) rioya qilishiga qaratilgan intellektual mulk nazariyasi va amaliyotini tanqidiy tekshirish orqali Xitoyning intellektual mulk istiqbolini Yevropa nazariyalari kontekstida tushuntiradi. Muallifning zamonaviy intellektual mulk falsafasiga tanqidiy sharhi shuni ko'rsatadiki, Lokk yoki Hegelning mulk nazariyalari orqali intellektual mulkni himoya qilishni oqlash nazariy paradoksni o'z ichiga oladi.

"Professor Wenwei Guanning XXR da intellektual mulk huquqi va amaliyotiga munosabati allaqachon faol bo'lgan ta'lim sohasini boyitadigan yangi istiqbollarni taklif etadi. Xitoyning intellektual mulkni himoya qilish tizimining kontseptual va operatsion jihatlarini va Xitoyning xalqaro hamkorlik jarayonini o'rganadigan akademik va siyosiy nutqlarga foydali hissa bo'ladi."[5].

Pererva Petro "Formation of intellectual property commercialization strategies"[6] nomli maqolasida sanoat ishlab chiqarish sohasida intellektual mulk obyektlarini iqtisodiy muomalaga kiritish muammolari tahlil qilgan.

Olimlarning isbotlashicha "...sanoat korxonalarida intellektual mulkni shakllantirishning eng muhimi iqtisodiy va boshqaruv muammolari bo'lib, ular zarur mablag'larning yetishmasligidan iborat hamda intellektual mahsulotning bozor raqobatbardoshligini baholashning qiyinligi bilan belgilanadi. Bozor, texnik-

texnologik va huquqiy muammolarga alohida e'tibor qaratildi, ularning mavjudligi texnologik bozorning rivojlanishiga to'sqinlik qiladi va intellektual va innovatsion faoliyat samaradorligiga sezilarli ta'sir qiladi. Ushbu muammolarning mavjudligi tadqiqotning asosiy maqsadi - intellektual mulk ob'ektlarini tijoratlashtirish usullari va strategiyalarini ishlab chiqishni oldindan belgilab beradi.”[6], deb tushuntirgan.

Intellektual mahsulotlarni tijoratlashtirishning uchta asosiy strategiyasi o'rganildi[6]:

- intellektual mahsulotni ilgari surish strategiyasi;
- innovatsiyalarni tarqatish strategiyasi;
- maksimal daromadni to'plash strategiyasi;

Ular asosida sanoati korxonolari uchun aqlli mahsulot ishlab chiqarishning iqtisodiy va ijtimoiy samarasini maksimal darajada oshirish maqsadlariga erishishga qaratilgan intellektual mahsulotlarni tijoratlashtirishning kompleks strategiyasi shakllantirildi va asoslandi.

Bizningcha, integratsiyalashgan strategiyaning asosiy tarkibiy qismi innovatsion faoliyatni investitsiyaviy qo'llab-quvvatlashni va intellektual mahsulotni ilmiy va konsalting yordamini ta'minlaydigan tashkiliy mexanizmdir. Tadqiqot natijalari sanoat korxonalarining intellektual va innovatsion faoliyati dasturlarini shakllantirish uchun ishlatilishi mumkin va ushbu masalalar bo'yicha keyingi ilmiy tadqiqotlar uchun asos bo'lib xizmat qiladi.

V.I.Dobrenkov “Innovative development: international experience of intellectual property commercialization”[7] nomli maqolasida innovatsion sohadagi eng yaxshi global yutuqlarga asoslangan ijtimoiy-iqtisodiy mexanizmlar bilan muvofiqlashtirilgan va yaxlit birlikda intellektual mulk mahsulotlarini tijoratlashtirish modeli ko'rib chiqilgan. Intellektual mulkni venchur boshqaruv mexanizmlarini shakllantirish va rivojlantirishning umumiy sivilizatsiyaviy va o'ziga xos xususiyatlarining ijtimoiy, iqtisodiy va tarixiy asoslari keltirilgan. Mamlakatning innovatsion rivojlanishining ijtimoiy-iqtisodiy asoslarini shakllantirish juda qiyin, og'riqli va ziddiyatli kechganligi ko'rsatilgan.

Ijtimoiy beqarorlik sharoitida ilmiy faoliyatni boshqarishning an'anaviy usullari ilmiy-texnikaviy ish uchun qulay bo'lgan va tadbirkorlik erkinligiga asoslangan iqlim va makonni yaratishga yordam bermaydi, bu esa ijodkorlik, tavakkalchilik ishtahasi, muqobil variantlarni mustaqil tanlash, o'z tashabbusi, ishbilarmonlik madaniyati va boshqalarni o'z ichiga oladi. Intellektual mahsulotlarni uzatishning ilmiy asoslangan va texnologik kontseptsiyasi taqdim etilgan. Venchur biznesning mohiyatini yetarli

darajada tushunib, uning ijtimoiy, iqtisodiy va psixologik parametrlarini, jamiyatning ijtimoiy-siyosiy va iqtisodiy o'zini-o'zi tashkil etishdagi rolini ishonchli aniqlagan holda, Rossiyada innovatsion rivojlanishning ijobiy omillarini samarali joriy etish haqida ma'lum darajada bashorat qilish va bashorat qilish mumkinligi isbotlangan.

Mavzu bo'yicha mahalliy olimlarimizning tadqiqotlarini o'rganadigan bo'lsak, Y.E.Aliyev "Innovatsion iqtisodiyot"[8] nomli o'quv qo'llanmasida respublikada yaratilgan intellektual mulk ob'ektlarini tashkil qilishda fan va ishlab chiqarishning ikki tomonlama qiziqishlarini ta'minlash uchun zarur sharoitlarni yaratish kerak. Olimlarning patent bilan himoyalangan har bir ishlanmasi belgilangan respublika korxonasi, firmasi yoki fermer xo'jaligida tajribada amalga oshirish uchun kerakli monitoringdan o'tkazilishi kerak.

"Intellektual mulk ob'ektlarining eng muhimlarini tadbqiq etish uchun, nafaqat tashkiliy tomondan qo'llash, balki tadbqiq etayotgan korxona tomonidan maqsadli mablag' bilan ta'minlash ham zarur. Intellektual mulkdan foydalanuvchilar uni mualliflarini ishlab chiqarilgan mahsulotning iqtisodiy samaradorligiga qarab rag'batlantirish lozim. Respublikada yaratilgan intellektual mulkka mualliflik huquqini kengroq rivojlantirish, korxonalar, manfaatdor ishlab chiqaruvchilar va fermalar, davlat tuzilmalari tomonidan ularni qo'shimcha moddiy rag'batlantirishi kerak. Bu patentlar bilan himoyalangan innovatsiyalarni tijoratlashtirish yo'li hisoblanadi."¹

A.A.Mamatov, T.T.Jo'rayev, A.N.Erkayev "Innovatsion iqtisodiyot"[9] o'quv qo'llanmasida Intellektual mulk obyektlarining bu yopiq ro'yxati intellektual faoliyatning barcha natijalari muhofaza qilinishini anglatmaydi, o'z navbatida barcha bilimlarni ikki katta guruhga bo'lishimiz mumkin bo'ladi:

1) amaldagi huquqiy mexanizmlar orqali muhofaza qilish imkoni mavjud bo'lmagan bilimlar (g'oyalar, nazriyalar, kashfiyotlar);

2) muhofazalanadigan bilimlar. Muhofazalanadigan bilimlar o'z navbatida qandaydir sabablar bilan muhofazalanmasdan qolgan va huquqiy jihatdan himoyalangan intellektual mulkka bo'linadi. Amaldagi qonunchilik intellektual faoliyat natijalarini himoyalash borasida turli intellektual mulk obyektlarini tasarruf etish, foydalanish va ularga egalik qilish tartibini belgilab beruvchi turli huquqlar (mualliflik huquqi, patent huquqi va hokazo) larni ko'zda tutadi².

¹ O'sha manbadan: 134-135-betlar

² O'sha manbadan: 163-bet

Sh.B. Ismoilov “O‘zbekiston Respublikasining intellektual mulk muhofazasi bo‘yicha butunjahon intellektual mulk tashkiloti bilan hamkorlik aloqalari”[10] nomli maqolada O‘zbekiston Respublikasining intellektual mulk muhofazasi bo‘yicha Butunjahon intellektual mulk tashkiloti bilan hamkorlik aloqalarining yo‘lga qo‘yilishi, uning rivojlanib borishi hamda o‘zaro hamkorlikda amalga oshirilgan ishlar tahlil etilgan. Shuningdek, so‘nggi yillarda O‘zbekiston Respublikasi tomonidan intellektual mulk muhofazasini ta‘minlashda Butunjahon intellektual mulk tashkiloti bilan hamkorlikni yanada kengaytirish bo‘yicha belgilangan chora-tadbirlar va uning tahliliga to‘xtalib o‘tilgan.

“Innovatsion faoliyatning iqtisodiy samaradorligini baholash va rivojlantirish yo‘llari”[11] nomli maqolamizda innovatsion faoliyatning zamonaviy iqtisodiyotdagi o‘rni, uning dolzarbligi va amaliy ahamiyati yoritilgan. Tadqiqotda innovatsion faoliyatning iqtisodiy samaradorligini oshirish yo‘llari, unga ta’sir qiluvchi omillar va baholash metodologiyasi tahlil qilingan. Xususan, yangi texnika va texnologiyalarni joriy etish resurslardan samarali foydalanish va mehnat faoliyatini yengillashtirish orqali ijtimoiy farovonlikni oshirishga xizmat qilishi ko‘rsatib o‘tilgan. O‘zbekiston sharoitida innovatsion jarayonlarni jadallashtirish orqali mahsulot va xizmatlar sifatini oshirish, milliy iqtisodiyotda raqobatbardoshlikni ta‘minlash yo‘nalishlari o‘rganilgan. Tahlil asosida innovatsion faoliyatni barqaror rivojlantirish bo‘yicha xulosalar va takliflar ishlab chiqilgan.

Tadqiqot metodologiyasi

Ushbu tadqiqotda O'zbekistonda intellektual mulk tizimini o'rganish va tahlil qilish uchun quyidagi metodlardan foydalanildi:

- Huquqiy-normativ hujjatlarni tahlil qilish: O'zbekistonda intellektual mulkka oid qonunchilik bazasi, xalqaro shartnomalari va huquqiy hujjatlari o'rganildi.
- Statistik tahlil: O'zbekiston Respublikasi Intellektual mulk agentligi, Davlat statistika qo'mitasi va boshqa rasmiy manbalardan olingan statistik ma'lumotlar asosida intellektual mulk obyektlarining ro'yxatga olinishi, himoya qilinishi va litsenziyalanishi bo'yicha ko'rsatkichlar tahlil qilindi.
- Qiyosiy tahlil: O'zbekistondagi intellektual mulk tizimi boshqa mamlakatlar, xususan rivojlangan davlatlar va MDH davlatlari tajribasi bilan solishtirildi.
- Tizimli yondashuv: Intellektual mulk tizimining huquqiy, iqtisodiy, ilmiy-texnik va ijtimoiy jihatlarini kompleks ravishda o'rganildi.

- Ekspert so'rovi: Intellektual mulk sohasida faoliyat yurituvchi mutaxassislar, huquqshunoslar va olimlar o'rtasida so'rovnoma o'tkazildi va ularning fikrlari tahlil qilindi.

- Tadqiqot davomida O'zbekistonda intellektual mulkni shakllantirish va rivojlantirish borasidagi mavjud muammolar aniqlandi hamda ularni hal etish yo'llari bo'yicha tavsiyalar ishlab chiqildi.

Tahlil va natijalar

Bugungi kunda dunyo miqyosida iqtisodiy raqobatbardoshlikni belgilovchi asosiy omil - bu moddiy resurslar emas, balki intellektual kapital bo'lib bormoqda. Bu esa intellektual kapitalga bo'lgan talabni oshirayapti. Kompaniyalar va davlatlar o'zining innovatsion salohiyati, inson bilimlari, yaratilgan ixtirolar va bilim mahsuliga asoslangan aktivlari orqali ustunlikka erishadi. Aynan shu jihat intellektual kapital va intellektual mulkning har qachongidan ham dolzarb mavzu bo'lishiga sabab bo'lyapti. Ilmiy qarashlar va amaliy kuzatuvlar shuni ko'rsatadiki, intellektual kapital tarkibiga kiruvchi inson resurslari, tashkilot ichki bilim bazasi va mijozlar bilan shakllangan barqaror aloqalar tashkilotlar faoliyatida o'ziga xos qiymat yaratmoqda. Shu sababli, bu kabi boyliklarni aniqlash, huquqiy himoya qilish va iqtisodiy jarayonga jalb qilish bugungi kunning muhim vazifasiga aylangan.

O'zbekiston sharoitida ham bu yo'nalish bo'yicha sezilarli harakatlar qilinmoqda. Xususan, intellektual mulkni rivojlantirish bo'yicha milliy strategiyalar qabul qilinib, patentlar va mualliflik huquqlari sonida ijobiy o'sish ko'zga tashlanmoqda. Biroq, mavjud salohiyatga qaramay, ko'plab ixtirolar va ilmiy ishlanmalar hali ham real iqtisodiy qiymatga aylantirilmayapti. Asosiy sabablar qatorida intellektual mulkni boshqarish tizimining zaifligi, tijoratlashtirish mexanizmlarining to'liq shakllanmagani, patentlash jarayonining murakkabligi va bu sohada maxsus bilimga ega mutaxassislar yetishmovchiligi turadi. Shuningdek, oliy ta'lim muassasalari va ilmiy-tadqiqot institutlari tomonidan yaratilayotgan ixtirolarning katta qismi nazariy darajada qolmoqda va amaliyotga joriy etish masalasi ham yetarlicha yo'lga qo'yilmagan. Bu esa ilm-fan va iqtisodiyot o'rtasidagi bog'liqlikning kuchsizligini anglatadi. Ilmiy g'oyalarni intellektual mulkka aylantirish, uni huquqiy jihatdan mustahkamlash va undan iqtisodiy foyda olish uchun maxsus infratuzilma - texnoparklar, startup inkubatorlari, texnologiya transfer markazlari faoliyatini kuchaytirish zarurati mavjud.

O'zbekiston Respublikasining Fuqarolik kodeksining 1031-moddasiga ko'ra, intellektual mulk obyektlari uch guruhga bo'linadi. Intellektual mulk obyektlari jumlasiga quyidagilar kiradi[4]:

1. intellektual faoliyat natijalari:
 - fan, adabiyot va san'at asarlari;
 - ijrolar, fonogrammalar, efir yoki kabel orqali ko'rsatuv yoxud eshittirish beruvchi tashkilotlarning ko'rsatuvlari yoki eshittirishlari;
 - elektron hisoblash mashinalari (bundan buyon matnda EHM deb yuritiladi) uchun dasturlar va ma'lumotlar bazalari;
 - ixtirolar, foydali modellar, sanoat namunalari;
 - seleksiya yutuqlari;
 - oshkor etilmagan axborot, shu jumladan ishlab chiqarish sirlari (nou-xau);
2. fuqarolik muomalasi ishtirokchilarining, tovarlar, ishlar va xizmatlarning xususiy alomatlarini aks ettiruvchi vositalar:
 - firma nomlari;
 - tovar belgilari (xizmat ko'rsatish belgilari);
 - geografik ko'rsatkichlar;
 - tovarlar chiqarilgan joy nomi;
3. ushbu Kodeksda yoki boshqa qonunlarda nazarda tutilgan hollarda intellektual faoliyatning boshqa natijalari hamda fuqarolik muomalasi ishtirokchilarining, tovarlar va xizmatlarning xususiy alomatlarini aks ettiruvchi vositalar.

Shu munosabat bilan 2022 - 2026-yillarda O'zbekiston Respublikasida intellektual mulk sohasini rivojlantirish strategiyasi (keyingi o'rinlarda Strategiya) qabul qilinishi alohida ahamiyat kasb etmoqda[12]. Strategiyaning asosiy yo'nalishlari quyidagilardan tashkil topgan:

- intellektual mulk sohasida davlat boshqaruvini takomillashtirish;
- intellektual mulk sohasidagi qonunchilikni takomillashtirish;
- intellektual mulk obyektlarini yaratish va ro'yxatdan o'tkazish jarayonlarini yanada takomillashtirish;
- intellektual mulk obyektlariga bo'lgan huquqlarni himoya qilish tizimini takomillashtirish;
- intellektual mulk bilan bog'liq munosabatlarga axborot-kommunikatsiya texnologiyalarini tatbiq etish va takomillashtirish;

- jamiyatda intellektual mulkka bo'lgan hurmat hissini shakllantirish va aholining huquqiy madaniyatini oshirish;
- intellektual mulk sohasidagi xalqaro standartlarni implementatsiya qilish va xalqaro hamkorlikni rivojlantirish.

Intellektual mulk obyektlarining ro'yxatga olinishi bo'yicha statistik ma'lumotlarini tahlil qilamiz (1-jadval).

1-jadval.

Intellektual mulk obyektlariga patent olish statistikasi³

№	Intellektual mulk obyektlari	Yakunlangan	Jarayonda	Hammasi
1	Ixtiro	1232	3981	5213
2	Foydali model	282	3406	3688
3	Sanoat namunasi	716	1989	2705
4	Tovar belgisi	38298	13199	51497
5	EHM uchun yaratilgan dasturlar	49110	8966	58076
6	Integral mikrosxemalar	0	48	48

Intellektual mulk obyektlariga patent olish statistikasi jadvali tahlili quyidagi holatni ko'rsatmoqda. EHM uchun yaratilgan dasturlar eng ko'p patentlashtirilgan kategoriya bo'lib, jami 58076 ta patent (49110 ta yakkaangan va 8966 ta jarayondagi) mavjud. Undan keyin tovar belgilari ikkinchi o'rinda turib, umumiy soni 51497 tani (38298 ta yakkaangan va 13199 ta jarayondagi) tashkil etadi.

Ixtirolar uchinchi o'rinda joylashgan bo'lib, jami 5213 ta patent (1232 ta yakkaangan va 3981 ta jarayondagi) bilan ro'yxatga olingan. Foydali modellarning umumiy soni 3688 ta (282 ta yakkaangan va 3406 ta jarayondagi) ni tashkil etadi. Sanoat namunalari esa 2705 ta patent (716 ta yakkaangan va 1989 ta jarayondagi) bilan beshinchi o'rinda turibdi.

Eng kam patentlashtirilgan kategoriya integral mikrosxemalar bo'lib, ular faqat 48 ta patent bilan (yakkaanganlari umuman yo'q, barcha 48 tasi jarayonda) oxirgi o'rinda turadi. Umumiy statistikaga ko'ra, texnologik yechimlar va dasturiy ta'minot sohasidagi intellektual mulk obyektlari patentlashtirishda yetakchilik qilmoqda, integral mikrosxemalar esa bu borada sezilarli darajada orqada qolmoqda.

³ <https://im.adliya.uz/>

Xulosa va takliflar

O'zbekistonda intellektual mulk tizimini shakllantirish va rivojlantirish borasida muhim huquqiy asoslar yaratilgan bo'lsa-da, tizimni yanada takomillashtirish, intellektual mulk obyektlarini samarali himoya qilish va tijoratlashtirish yo'nalishlarida hali ko'plab vazifalar mavjud. Ilmiy ishlanmalarni amaliyotga joriy etish, innovatsion faoliyatni rag'batlantirish va xalqaro tajribalarni o'rganish orqali intellektual kapitalning iqtisodiyotdagi rolini kuchaytirish zarur. Statistik ma'lumotlar va tahlillar shuni ko'rsatadiki, intellektual mulk sohasida qabul qilingan strategiyalar ijobiy natijalar bermoqda, biroq raqamli texnologiyalar rivojlanishi va global raqobat sharoitida bu sohada barqaror taraqqiyot uchun tizimli va izchil islohotlarni davom ettirish muhim ahamiyat kasb etadi.

Yuqoridagi ma'lumotlardan kelib chiqib, O'zbekistonda intellektual mulk tizimini rivojlantirish bo'yicha quyidagi takliflar ishlab chiqildi:

1. Qonunchilik bazasini takomillashtirish: Intellektual mulk sohasidagi amaldagi qonunlarni xalqaro standartlar va zamonaviy talablar asosida yangilash, raqamli texnologiyalar va innovatsiyalar bilan bog'liq yangi sohalarda huquqiy tartibga solishni kuchaytirish.
2. Intellektual mulkni tijoratlashtirish mexanizmlarini rivojlantirish: Ilmiy-tadqiqot muassasalari va biznes o'rtasidagi hamkorlikni kuchaytirish, intellektual mulkni baholash va litsenziyalash amaliyotini soddalashtirish, innovatsion loyihalarni moliyalashtirish mexanizmlarini takomillashtirish.
3. Kadrlar tayyorlash tizimini takomillashtirish: Oliy ta'lim muassasalarida intellektual mulk bo'yicha maxsus ta'lim dasturlarini joriy etish, patent vekillari va intellektual mulk bo'yicha yuristlar tayyorlash tizimini kuchaytirish, xalqaro malaka oshirish dasturlarini kengaytirish.
4. Raqamli muhitda intellektual mulk himoyasini takomillashtirish: Internet tarmog'ida mualliflik huquqi buzilishiga qarshi kurashish mexanizmlarini joriy etish, onlayn platformalarda intellektual mulk huquqlarini himoya qilish uchun zamonaviy texnologiyalardan foydalanish, raqamli sohadagi intellektual mulk buzilishlariga tezkor munosabat bildirish tizimini yaratish.
5. Xalqaro hamkorlikni kuchaytirish: O'zbekistonning intellektual mulk sohasidagi xalqaro shartnoma va kelishuvlarda ishtirokini kengaytirish, WIPO va boshqa xalqaro tashkilotlar bilan hamkorlikni rivojlantirish, rivojlangan mamlakatlar tajribasini o'rganish va qo'llash.

Ushbu takliflarni amalga oshirish O'zbekistonda intellektual mulk tizimini yanada takomillashtirish, intellektual faoliyat natijalarini samarali himoya qilish va tijoratlashtirish, shuningdek, mamlakatni innovatsion rivojlantirish va raqobatbardoshligini oshirishga xizmat qiladi.

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Annotatsiya

Ushbu maqola yurak-qon tomir tizimining gistologik, sitologik va embriologik rivojlanishiga oid ilmiy ma'lumotlarni taqdim etadi. Yurak va qon tomirlarining tuzilishi, ularning hujayra tarkibi, embryonallik davrida rivojlanishi, shuningdek, yurak-qon tomir tizimining normal va patologik jarayonlarda qanday o'zgarishlar sodir bo'lishi batafsil tahlil qilinadi. Maqolada yuqori sifatli ilmiy adabiyotlardan foydalanilgan va zamonaviy tadqiqotlar asosida yangi bilimlar keltirilgan.

Kalit so'zlar: yurak, qon tomirlari, gistologiya, sitologiya, embriologiya, rivojlanish, patofiziologiya.

Аннотация :

В данной статье представлена информация о гистологическом, цитологическом и эмбриологическом развитии сердечно-сосудистой системы. Рассматриваются структура сердца и сосудов, их клеточный состав, а также изменения, происходящие в ходе эмбрионального развития. В статье используются современные научные данные и последние исследования, что позволяет

выделить важные аспекты в изучении нормальных и патологических процессов в сердечно-сосудистой системе.

Ключевые слова: сердце, кровеносные сосуды, гистология, цитология, эмбриология, развитие, патофизиология.

Annotation :

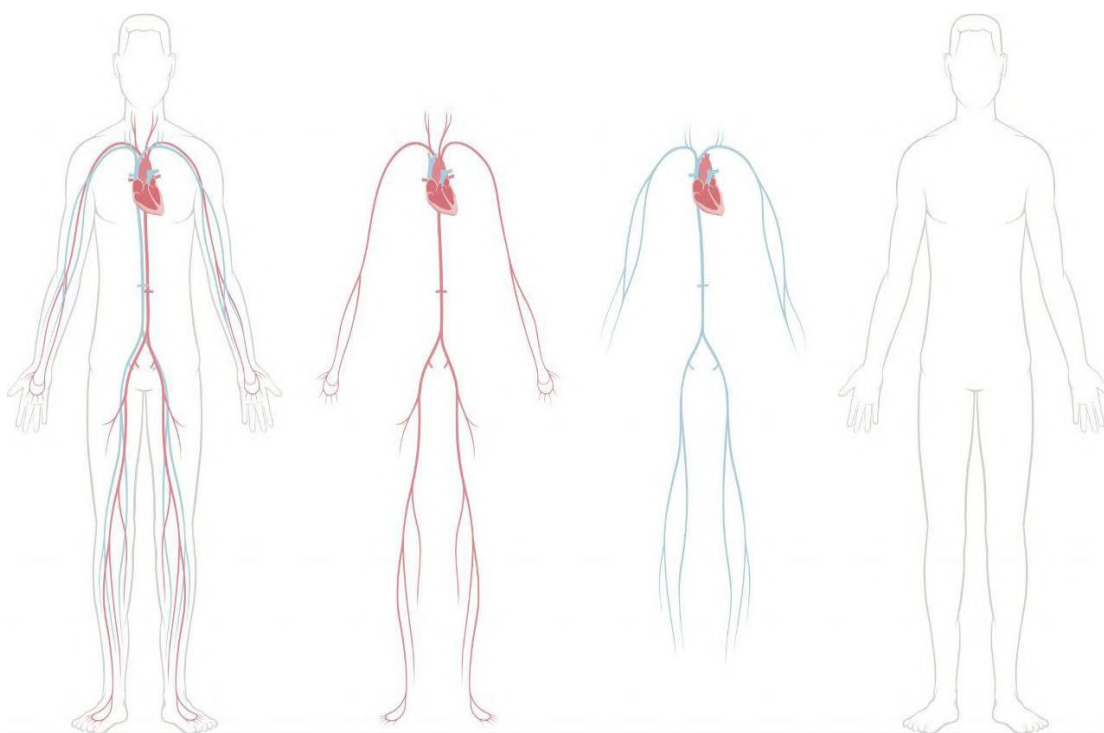
This article provides scientific information on the histological, cytological, and embryological development of the cardiovascular system. It discusses the structure of the heart and blood vessels, their cellular composition, as well as the changes that occur during embryonic development. The article incorporates modern scientific data and recent research, highlighting key aspects in understanding both normal and pathological processes within the cardiovascular system.

Keywords: heart, blood vessels, histology, cytology, embryology, development, pathophysiology.

Mavzuning hozirgi kundagi dolzarbligi

Yurak-qon tomir tizimi inson organizmining asosiy hayotiy tizimi bo'lib, uning rivojlanishi, tuzilishi va patologiyasi so'nggi yillarda ilmiy tadqiqotlarning markazida turibdi. Gistologiya sitologiya va embriologiya, sohalaridagi yangi yondashuvlar, ayniqsa, stem hujayralari va sun'iy embriologiya kabi innovatsion texnologiyalar yurakning rivojlanish mexanizmlarini chuqurroq tushunishga imkon yaratmoqda.

Masalan, so'nggi yillarda inson induktsiyalangan pluripotent stem hujayralaridan (hiPSC) olingan kardiomiotsitlar yordamida sun'iy embriologiya modellarini yaratish orqali yurakning rivojlanish jarayonlari va kasalliklarning mexanizmlari o'rganilmoqda. Bu yondashuvlar yurak kasalliklarini davolashda yangi imkoniyatlar yaratmoqda, masalan, miokard infarkti natijasida yuzaga kelgan fibrozni tiklashda hiPSC asosidagi patchlar muvaffaqiyatli qo'llanilmoqda .



Embriologik tadqiqotlar yurak-qon tomir tizimining rivojlanishida muhim rol o'ynaydigan molekulyar signal yo'llarini aniqlashga yordam bermoqda. Masalan, Notch signal yo'li endokardium va miokard o'rtasidagi hujayra-hujayra muloqotini tartibga solishda, shuningdek, yurak valflarining rivojlanishida muhim ahamiyatga ega .

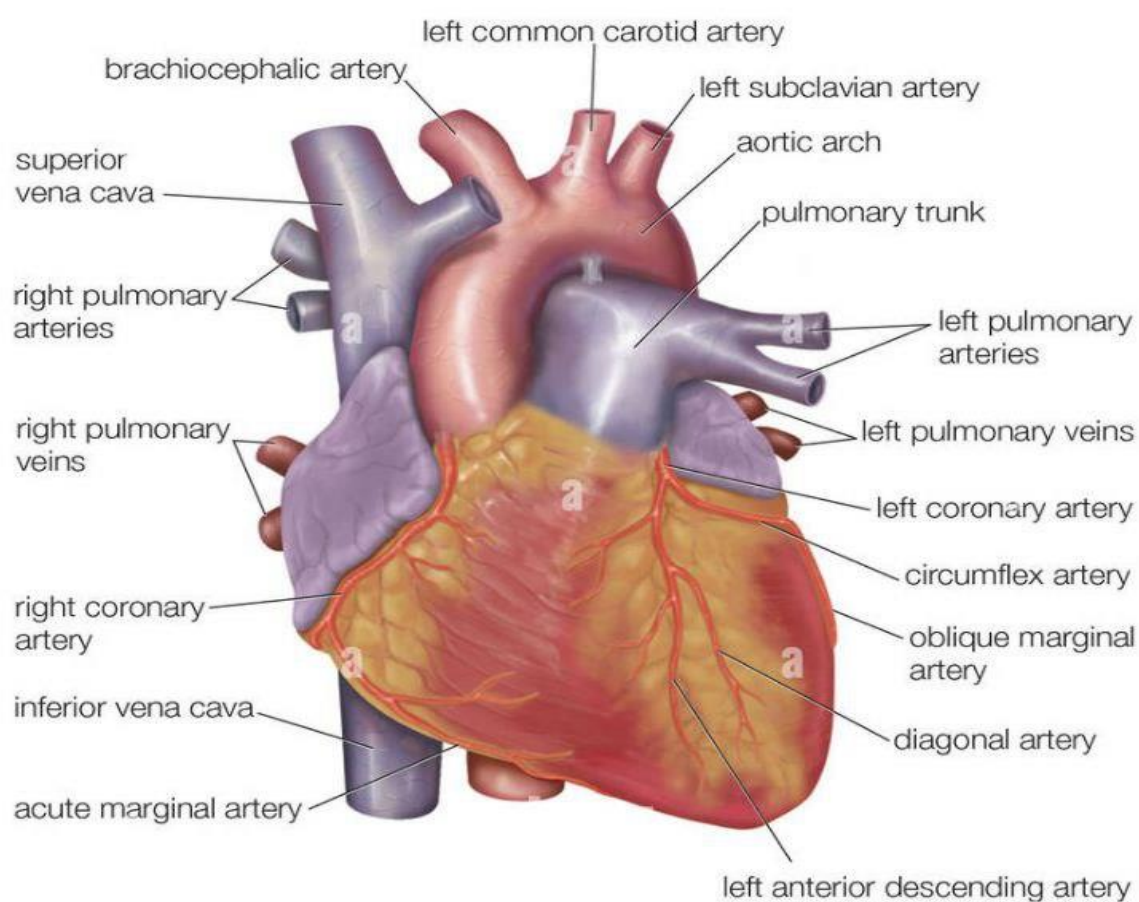
Shuningdek, kardiogenezning molekulyar mexanizmlarini o'rganish orqali tug'ma yurak nuqsonlarining rivojlanishiga olib keladigan omillar aniqlanmoqda. Bu tadqiqotlar, ayniqsa, homilalik davrda yuzaga keladigan yurak nuqsonlarini tushunishda muhim ahamiyatga ega .

Bundan tashqari, yangi texnologiyalar yordamida yurakning gistologik va sitologik tuzilishini o'rganish, uning kasalliklaridagi o'zgarishlarni aniqlashda muhim ahamiyat kasb etmoqda. Bu yondashuvlar yurak kasalliklarini erta bosqichda aniqlash va davolashda samarali usullarni ishlab chiqishga yordam bermoqda.

Shu bilan birga, yurak-qon tomir tizimi bo'yicha ilmiy tadqiqotlar nafaqat tibbiyot sohasida, balki biotexnologiya, genetik muhandislik va regenerativ tibbiyot kabi sohalarda ham yangi imkoniyatlar yaratmoqda. Bu esa mavzuning dolzarbligini yanada oshiradi.

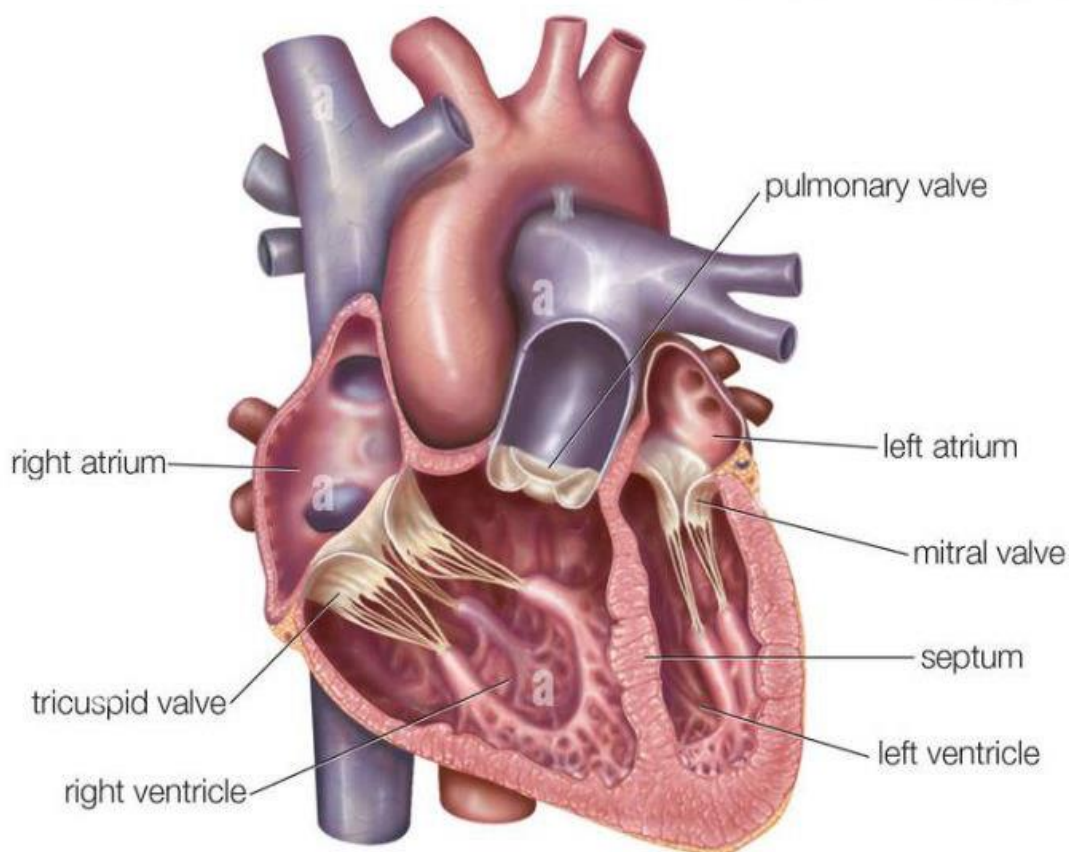
Kirish

Yurak-qon tomir tizimi inson organizmining eng muhim tizimlaridan biri bo'lib, uning asosiy vazifasi organizmga kislorod va ozuqa moddalarini yetkazish, shuningdek, metabolik chiqindilarni olib chiqishdir. Ushbu tizimning to'g'ri ishlashi organizmning barcha organlari va tizimlarining samarali faoliyatini ta'minlashda muhim rol o'ynaydi. Yurak va qon tomirlarining tuzilishi va funksiyasi turli ilmiy sohalarda, xususan gistologiya, sitologiya va embriologiya sohalarida keng o'rganilmoqda.



Gistologiya bo'yicha, yurak va qon tomirlarining hujayra tarkibi, ularning tuzilishi va organizmdagi vazifalari batafsil o'rganilmoqda. Yurakning tuzilishi, ayniqsa, miokardning hujayra turlari, yurak mushaklari va qon tomirlarining endoteliy

hujayralari o'rtasidagi o'zaro munosabatlar inson organizmidagi hayotiy muvozanatni saqlashda muhim ahamiyatga ega. Yurakni tashkil etuvchi hujayralar, shu jumladan kardiomiotsitlar va endoteliy hujayralari, o'zining yuqori darajadagi differensiyasi va funksional faolligi bilan ajralib turadi.



Sitologiya sohasida, yurak va qon tomirlaridagi hujayralarning fiziologik va patologik jarayonlardagi o'zgarishlari o'rganiladi. Yangi metodlar yordamida, xususan, mikroRNA va gen ekspressiyasi kabi hujayra darajasidagi o'zgarishlar, yurak kasalliklari va boshqa patologik holatlar haqida ko'plab yangi bilimlarga ega bo'lish mumkin. Sitologik tadqiqotlar nafaqat yurak kasalliklarini aniqlashda, balki ularni davolashning yangi yo'llarini izlashda ham katta yordam bermoqda.

Embriologiya nuqtai nazaridan, yurak-qon tomir tizimi homiladorlik davrida rivojlanadi. Embriologik jarayonlar davomida yurak va qon tomirlarining shakllanishi va rivojlanishi yuqori darajada tartibga solingan. Yurak va qon tomirlarining embryonal rivojlanishi, ularning to'g'ri tashkil topishi va rivojlanishi uchun bir qator genetik va

epigenetik omillarni o'z ichiga oladi. Tushuncha sifatida, yurak nuqsonlarining ko'plab tug'ma shakllari embriologik jarayonlardagi xatoliklar bilan bog'liq.

So'nggi yillarda, embriologiya va regenerativ tibbiyot sohasidagi yangi yondashuvlar, yurak va qon tomir tizimining kasalliklarini davolashda yangi imkoniyatlarni ochmoqda. Masalan, hujayra terapiyasi, stem hujayralari asosidagi texnologiyalar va mikroskopik tahlillar orqali yurak kasalliklarini davolashda muvaffaqiyatli natijalar kuzatilmoqda.

Asosiy qisim

Yurak-qon tomir tizimi inson organizmining markaziy tizimlaridan biri bo'lib, uning to'g'ri ishlashi hayot uchun zarurdir. Ushbu tizimning anatomik va fiziologik tuzilishi, gistologik va sitologik xususiyatlari, shuningdek, embrional rivojlanishdagi o'zgarishlar insonning sog'lom hayot kechirishini ta'minlashda muhim o'rin tutadi. Quyida yurak-qon tomir tizimi, uning tuzilishi, rivojlanishi va kasalliklari bo'yicha ilmiy asoslangan ma'lumotlar keltirilgan.

1. Yurakning Gistologik Tuzilishi

Yurak, organizmdagi eng katta mushak bo'lib, u uch qatlamdan tashkil topgan: endokardiyum, miokardiyum va epikardiyum. Endokardiyum yurakning ichki qatlamini tashkil etib, qon tomirlarining endoteliy hujayralarini o'z ichiga oladi. Miokardiyum esa yurakning mushak qatlamidir, u kardiomiotsitlar deb ataluvchi maxsus hujayralardan tashkil topgan. Bu hujayralar yuqori darajada differensiyalashgan bo'lib, yurakning qisqarish faoliyatini ta'minlaydi. Epikardiyum esa yurakning tashqi qavatidir, u yurakni himoya qilib, unga elastiklik beradi.

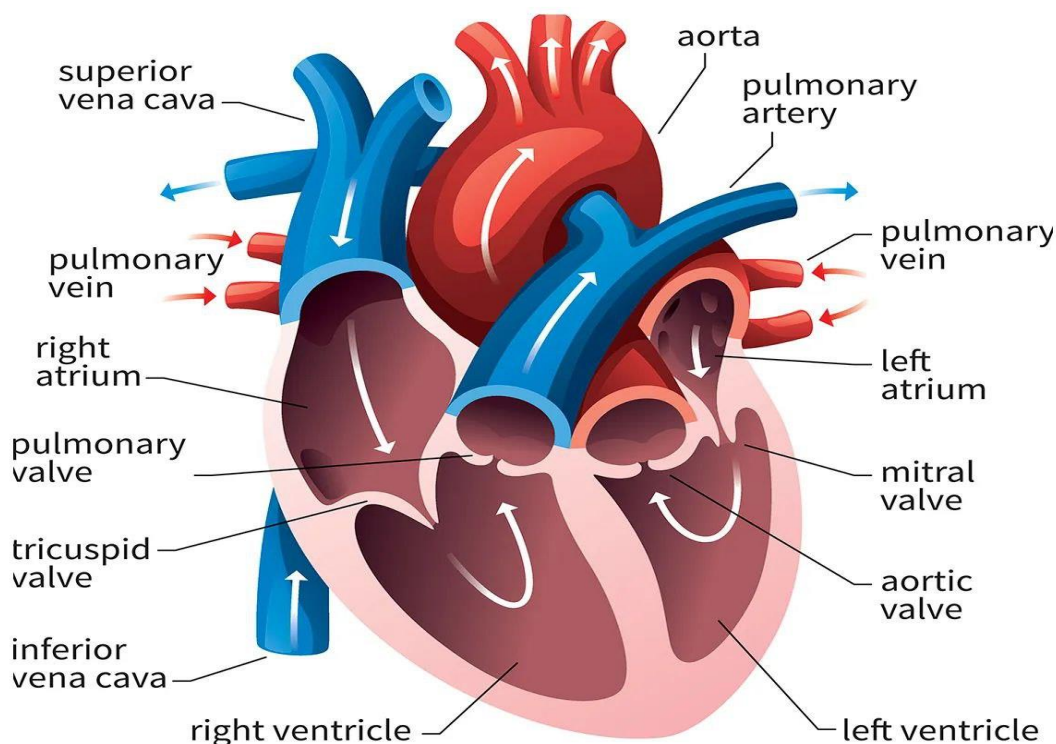
gistologik tadqiqotlar, yurak mushaklari va qon tomirlarining strukturasini o'rganish orqali, ko'plab yurak kasalliklarining rivojlanish mexanizmlarini aniqlashga imkon beradi. Masalan, miokard infarkti yoki kardiomiopatiya kabi kasalliklarda hujayralarning o'zgarishi va ularning rekonstruksiya jarayonlarini kuzatish mumkin.

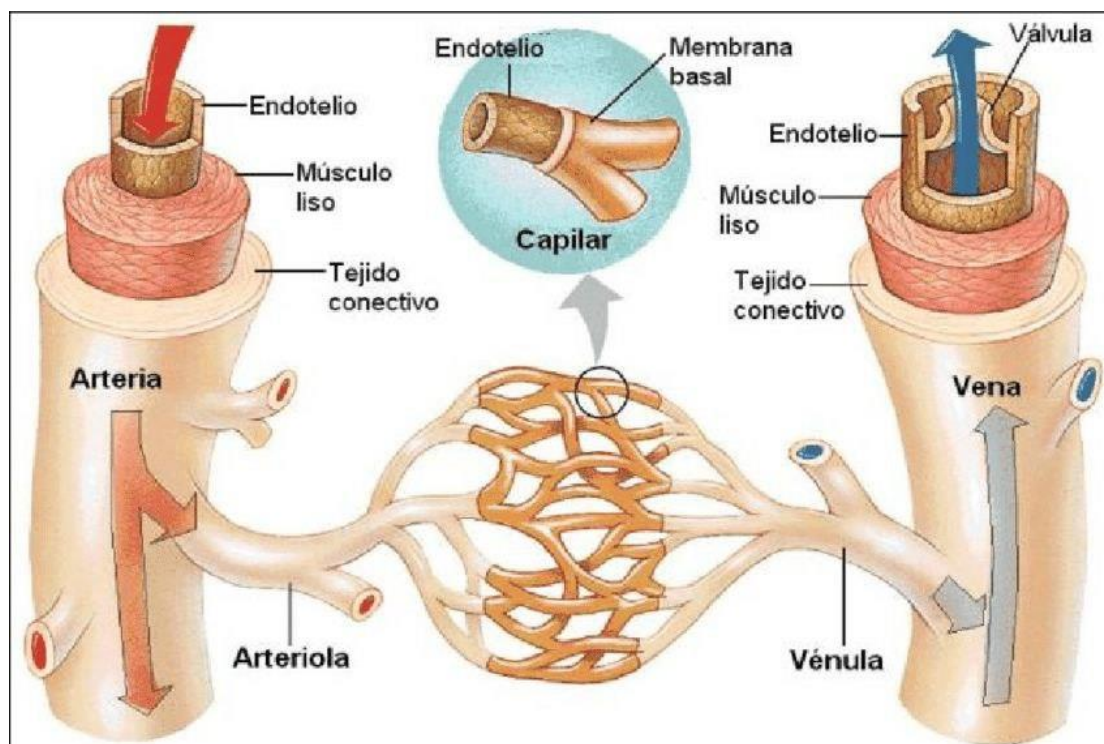
2. Yurak va Qon Tomirlarining Sitologiyasi

Yurak va qon tomirlarining normal faoliyati ularni tashkil etuvchi hujayralarning to'g'ri ishlashiga bog'liqdir. Sitologik tadqiqotlar yordamida, yurakdagi

kardiomiotsitlar va qon tomirlaridagi endoteliy hujayralarining o'zgarishlari tahlil qilinadi. Hujayralar darajasida sodir bo'ladigan o'zgarishlar yurak-qon tomir tizimining patologik holatlarini aniqlashda katta ahamiyatga ega.

Yurak kasalliklarining, jumladan, yurak etishmovchiligi va hipertoniya kabi kasalliklarning rivojlanishida, hujayralarning stressga javobi, yallig'lanish jarayonlari va oksidlanish stressining o'рни juda katta. Sitologik tahlillar orqali, bu jarayonlarni aniqlash va ular bilan kurashishning samarali usullari ishlab chiqilmoqda.





3. Yurak-Qon Tomir Tizimining Embriologik Rivojlanishi

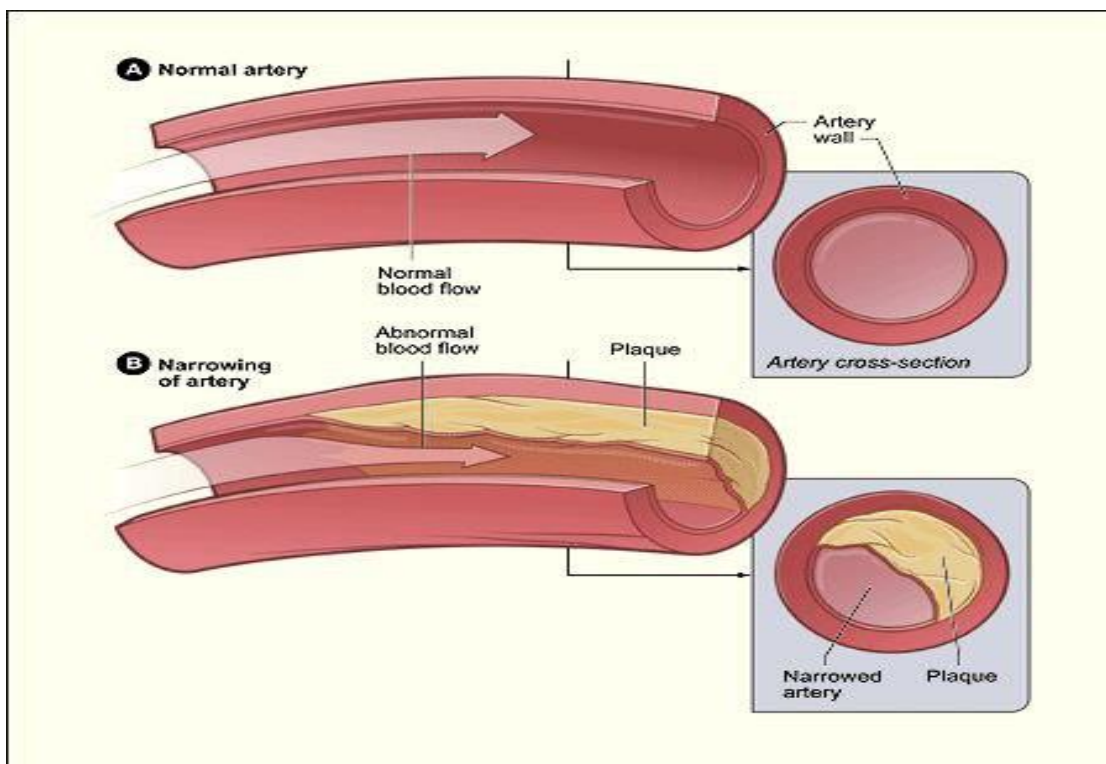
Yurak va qon tomirlarining rivojlanishi homiladorlik davrida boshlanadi va juda murakkab jarayonni tashkil etadi. Embriologiya sohasida olib borilgan tadqiqotlar yurak-qon tomir tizimining boshlang'ich rivojlanishiga va uning morfogenezi jarayonlariga yondashuvni chuqurroq tushunishga yordam beradi.

Homilalik rivojlanishning dastlabki bosqichlarida, yurak va qon tomirlarining shakllanishi uchun bir qator genetik va epigenetik omillar muhim rol o'ynaydi. Embriologik tadqiqotlar orqali yurak nuqsonlari, jumladan, tug'ma yurak xastaliklari va ularning rivojlanish mexanizmlari o'rganilmoqda. Yangi avlod diagnostika va davolash usullari shu bilimlarga asoslanadi.

4. Yurak-Qon Tomir Tizimining Kasalliklari

Yurak-qon tomir tizimining kasalliklari inson hayotini xavf ostiga qo'yadigan eng keng tarqalgan patologik holatlardir. Ular orasida yurak etishmovchiligi, miokard infarkti, aritmiyalar, arteriyal hipertoniya va boshqa kasalliklar mavjud. Ushbu kasalliklar asosan yurak va qon tomirlarining strukturaviy o'zgarishlari, hujayralar darajasidagi patologik jarayonlar va genetik omillarning ta'siri natijasida rivojlanadi.

gistologik va sitologik tahlillar yordamida yurak kasalliklarining rivojlanish mexanizmlarini aniqlashda samarali natijalarga erishilgan. Masalan, miokard infarkti paytida, miokardiyal hujayralarning nekrozi va fibrozning rivojlanishi kuzatiladi. Shuningdek, yurak etishmovchiligi va hipertoniya kabi kasalliklarda qon tomirlarining o'zgarishlari, hujayralarning yallig'lanishi va oksidlanish stressi kabi jarayonlar boshqariladi.



Tadqiqot Maqsadi

Ushbu tadqiqotning maqsadi yurak-qon tomir tizimining gistologik, sitologik va embriologik rivojlanishini chuqur o'rganish, shuningdek, bu tizimda yuzaga keladigan kasalliklarning mexanizmlarini aniqlashdir. Tadqiqotda yurak va qon tomirlarining tuzilishi, ularning hujayra tarkibi, rivojlanish jarayonlari va patologik holatlari tahlil qilinadi. Bunda, gistologik, sitologik va embriologik metodlardan foydalangan holda, normal va patologik jarayonlardagi o'zgarishlar o'rganiladi.

Tadqiqotning asosiy maqsadlari quyidagilardan iborat:

Yurak va qon tomirlarining gistologik tuzilishini tahlil qilish, ularning hujayra tarkibini oʻrganish.

Yurak va qon tomirlaridagi hujayralar darajasidagi oʻzgarishlarni (yalligʻlanish, oksidlanish stressi, hujayra stressi) aniqlash.

Homilalik davrda yurak-qon tomir tizimining embriologik rivojlanishini oʻrganish va tugʻma yurak nuqsonlarining rivojlanish mexanizmlarini tahlil qilish.

Yurak kasalliklari, jumladan, miokard infarkti, hipertoniya va yurak etishmovchiligining rivojlanishida qatnashuvchi molekulyar mexanizmlar va hujayra oʻzgarishlarini aniqlash.

Hujayra terapiyasi, stem hujayralari asosidagi texnologiyalar va boshqa innovatsion davolash usullari yordamida yurak kasalliklarini davolashning samaradorligini baholash.

Amaliy Ishlar

Tadqiqotning amaliy yoʻnalishlari quyidagilardan iborat:

Gistologik Tahlillar:

Yurak va qon tomirlaridan olingan biopsiyalarni mikroskopik tahlil qilish. Bu, ularning tuzilishini, hujayra tarkibini, va kasalliklar bilan bogʻliq oʻzgarishlarni aniqlashda yordam beradi.

Miokard va qon tomirlarining hujayra tuzilishini oʻrganish uchun immunohistokimiyaviy boʻyoqlar va elektrofiziologik tahlillarni qoʻllash.

Sitologik Tahlillar:

Kardiomiotsitlar va qon tomirlarining endoteliy hujayralarini mikroskopik va molekulyar darajada tahlil qilish. Yalligʻlanish va oksidlanish stressining taʼsirini oʻrganish.

Yurak kasalliklarida sodir bo'ladigan hujayra darajasidagi o'zgarishlarni aniqlash (hujayra apoptosi, nekrozi, fibroz va boshqalar).

Embriologik Tadqiqotlar:

Homilalik davrda yurak va qon tomirlarining rivojlanishini o'rganish. Xususan, yurakning tuzilishi va rivojlanishidagi molekulyar signal yo'llarini o'rganish (Notch, Wnt, Shh signal yo'llari).

Tug'ma yurak nuqsonlarining rivojlanishini aniqlash va bu jarayonlardagi epigenetik omillarni o'rganish.

Molekulyar Genetik Tadqiqotlar:

Yurak kasalliklariga sabab bo'luvchi genetik mutatsiyalarni aniqlash va ularni davolashdagi potentsial yondashuvlarni tahlil qilish.

Stem hujayra terapiyasini qo'llash va miokard infarkti, yurak etishmovchiligi kabi kasalliklar uchun yangi davolash usullarini tadqiq qilish.

Innovatsion Davolash Usullarini Tadqiq Etish:

Hujayra terapiyasi va stem hujayralar yordamida yurak kasalliklarini davolashning samaradorligini tekshirish.

Mikroskopik tahlillar va molekulyar biologiya yordamida yurak kasalliklarida qo'llaniladigan innovatsion usullarni o'rganish.

Tadqiqot Natijalari

Tadqiqotning yakuniy maqsadi – yurak-qon tomir tizimining gistologik, sitologik va embriologik jihatlarini chuqurroq tushunish va bu bilimlarni yurak kasalliklarini davolashning yangi, samarali usullarini ishlab chiqishda qo'llashdir.

Materiallar va Usullar

Ushbu tadqiqotda yurak-qon tomir tizimining gistologik, sitologik va embriologik xususiyatlarini o'rganish uchun turli xil metodlar va materiallardan foydalaniladi.

Tadqiqotda qo'llaniladigan usullarni aniq va samarali natijalarni olish maqsadida tanlanadi. Quyida tadqiqotda ishlatiladigan materiallar va usullar keltirilgan.

Materiallar

Tadqiqotda foydalaniladigan materiallar quyidagilardan iborat:

Yurak va qon tomirlaridan olingan biopsiyalar: Tadqiqotda inson va hayvon organizmidan olingan yurak va qon tomirlaridan olingan biopsiyalar ishlatiladi. Bu materiallar gistologik, sitologik va molekulyar tahlillar uchun tayyorlanadi.

Homilalik rivojlanish bosqichidagi organizmlar: Homilador hayvonlardan olingan embryonlar va homilalar yurak-qon tomir tizimining rivojlanishini o'rganish uchun ishlatiladi.

Hujayra madaniyatlari: Kardiomiotsitlar, endoteliy hujayralari, fibroblastlar kabi yurak va qon tomirlariga tegishli hujayra madaniyatlari laboratoriyada o'rganiladi.

Kimyoviy reagentlar: gistologik bo'yash, immunohistokimiyaviy reaksiyalar va molekulyar biologiya usullarida foydalaniladigan reagentlar (bo'yoqlar, antikorlar, PCR reagentlari, enzima reaksiyalari uchun modifikatorlar).

Tajriba guruhleri: Tadqiqotda ma'lum bir davrda hayvonlar (masalan, siçanlar) yoki inson sub'ektlari, ularning kasallik holatlari bilan to'liq tahlil qilingan guruhlar ishlatiladi.

Usullar

Tadqiqotda qo'llaniladigan asosiy usullar quyidagilardan iborat: **Gistologik Usullar**

To'qima tayyorlash: Yurak va qon tomirlaridan olingan namunalar formalin bilan fiksatsiya qilinadi va parafinli bloklar tayyorlanadi. Bu bloklar mikrotom yordamida juda ingichka bo'laklarga kesiladi.

Bo'yash usullari: gistologik tahlil uchun turli bo'yash usullari qo'llaniladi. Masalan:

Gematoksilin-eozin (H&E) bo'yash: To'qimalarning umumiy tuzilishini ko'rsatadi.

Masson's Trichrome bo'yash: Kolagen va mushak tolalarini ajratish uchun ishlatiladi.

Immunohistokimiyaviy bo'yash: Maxsus antikorlar yordamida ma'lum proteinlar va hujayra markerlarini aniqlashda qo'llaniladi.

Sitologik Usullar

Preparatlari tayyorlash: Hujayra madaniyatlaridan olingan hujayralar mikroskopik tahlil uchun tayyorlanadi. Cytospin yordamida hujayralar to'planadi va mikroskop orqali tahlil qilinadi.

Mikroskopiya: Hujayralarda yallig'lanish, oksidlanish stressi va apoptotik jarayonlar kabi hujayra o'zgarishlarini aniqlash uchun ishlatiladi. Hujayralar tegishli fluorescent markazlar bilan bo'yoqlanadi.

Hujayra populyatsiyalarini tahlil qilishda, xususan, kardiomiotsitlar va endoteliy hujayralarining o'zgarishlarini o'rganishda qo'llaniladi.

Embriologik Usullar

Embriologik tadqiqotlar uchun hayvonlarning (masalan, sichqoncha) embryonlari o'rganiladi. Ushbu embryonlar in vitro sharoitda rivojlanib, yurak va qon tomirlarining tuzilishi va morfogenezi tahlil qilinadi.

Embrional rivojlanish bosqichlarida yurak va qon tomirlarining rivojlanishi bilan bog'liq genlarning ekspressiyasini o'rganish uchun qo'llaniladi. Bu usul orqali genetik materialning aniq joylashuvi va ekspressiyasi aniqlanadi.

Molekulyar Genetik Usullar

Yurak kasalliklari bilan bog'liq bo'lgan genetik mutatsiyalarni aniqlash uchun PCR usuli qo'llaniladi. PCR orqali yurak va qon tomir tizimida sodir bo'ladigan genetik o'zgarishlar va mutatsiyalar aniqlanadi.

Yurak kasalliklaridagi molekulyar o'zgarishlarni o'rganish uchun mRNA ning ifodalash darajasi tahlil qilinadi. Ushbu usul orqali kardiomiotsitlar va endoteliy

hujayralarining faoliyatini va kasalliklar bilan bog‘liq gen ekspressiyasini aniqlash mumkin.

Yurak-qon tomir tizimida yuzaga keladigan molekulyar o‘zgarishlarni o‘rganish uchun oqsillarni ajratish va ularning ekspressiyasini aniqlashda foydalaniladi.

Statistik Tahlil Usullari

Tadqiqot natijalarini tahlil qilishda statistik usullar, jumladan, t-test, ANOVA va regressiya tahlillari qo‘llaniladi. Bu usullar yordamida turli guruhlar orasidagi farqlar va o‘zgarishlarning ahamiyati aniqlanadi.

Xulosa

Yurak-qon tomir tizimi inson organizmining hayotiy faoliyatida muhim o‘rin tutadi. Ushbu tizimning normal rivojlanishi va funktsiyalari, shuningdek, turli kasalliklarning yuzaga kelishi chuqur o‘rganishni talab qiladi. Tadqiqot davomida yurak va qon tomirlarining gistologik, sitologik va embriologik tuzilishi, shuningdek, patologik o‘zgarishlarning mexanizmlari batafsil tahlil qilindi.

Tadqiqot natijalari quyidagi xulosalarga olib keldi:

Yurak-qon tomir tizimi tuzilishining murakkabligi: Yurak va qon tomirlarining normal rivojlanishida turli xil hujayralar va molekulyar mexanizmlar qatnashadi. Embriologik tadqiqotlar, shu jumladan, homilalik rivojlanish bosqichlarida yurak va qon tomirlarining shakllanish jarayonlarini yanada chuqurroq tushunishga imkon berdi.

Patologik o‘zgarishlar: Yurak-qon tomir tizimidagi patologik holatlar, masalan, miokard infarkti, yurak etishmovchiligi va gipertoniya, hujayra darajasidagi o‘zgarishlar bilan bog‘liq. gistologik va sitologik tahlillar orqali bu o‘zgarishlarning yallig‘lanish, oksidlanish stressi va hujayra apoptosi kabi mexanizmlar orqali yuzaga kelishi aniqlandi.

Molekulyar mexanizmlar: Yurak kasalliklari rivojlanishida genetik omillar va molekulyar mexanizmlar katta rol o‘ynaydi. PCR va RNA tahlil qilish orqali yurak va

qon tomir tizimida sodir bo'ladigan molekulyar o'zgarishlar va gen ekspressiyasi o'rganildi. Bu bilimlar yangi davolash usullarini ishlab chiqishda yordam beradi.

Innovatsion davolash yondashuvlari: Hujayra terapiyasi, stem hujayralari va boshqa innovatsion davolash usullari yurak kasalliklarini davolashda yangi imkoniyatlar yaratadi. Tadqiqot davomida bunday usullarning samaradorligi va potentsiali baholandi.

Tadqiqotning amaliy ahamiyati: Tadqiqotda keltirilgan ma'lumotlar, ayniqsa yurak-qon tomir tizimi kasalliklarini erta aniqlash, profilaktika va samarali davolashda qo'llanilishi mumkin. Ushbu bilimlar, tibbiy amaliyotda, ayniqsa yurak kasalliklarini davolashda yangi strategiyalarni ishlab chiqishda muhim rol o'ynaydi.

Umuman olganda, tadqiqot yurak-qon tomir tizimi va uning kasalliklari haqidagi ilmiy bilimlarni kengaytirish, shuningdek, amaliy tibbiyotda samarali davolash usullarini ishlab chiqish uchun muhim ilmiy asoslarni taqdim etdi. Yangi usullarni ishlab chiqish, texnologiyalarni yanada rivojlantirish va ilg'or ilmiy tadqiqotlar yordamida yurak kasalliklarini davolashda katta yutuqlarga erishish mumkin.

Tadqiqot davomida olib borilgan ishlar yurak-qon tomir tizimi bilan bog'liq kasalliklarning oldini olish va davolashda yangiliklar kiritishga imkoniyat yaratadi, bu esa umumiy sog'liqni yaxshilashga katta hissa qo'shadi.

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MUSIQA SAN'ATIDA MALAKALI IJROCHILARNI TAYYORLASH MUAMMOLARI

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Annotaciya: Bu maqolada musiqa san'atida malakali ijrochilar tayyorlashda o'zbek san'atida qilingan va o'rgatilib kelinayotgan dars o'tish metodlari, yangitdan yaratilgan o'quv qo'llanmalar yaxshi pedagog va malakali ijrochilar tayyorlashda katta hissa qo'shayotgani hamda bundan paydo bo'layotgan muammo va yechimlar to'g'risida yangi ta'lim tizimi saytlari va elektron kitoblardan izlanish olib borildi. Maqolada aynan san'at sohasidagi yetuk pedagog va malakali ijrochilar tayyorlashda ustoz va shogirt o'rtasidagi yaqinlik yani munosabat to'g'risida ham ko'rsatib berilgan. Maqolada musiqiy san'atda, xususan Qoraqalpoq an'anaviy musiqiy ijrochilik sohasida malakali kadrlar tayyorlashda uchrayotgan dolzarb muammolar yoritiladi. Shuningdek, mavjud to'siqlar tahlil qilinib, ularni bartaraf etish bo'yicha takliflar ilgari suriladi.

Kalit so'zlari: san'at, ustoz, shogirt, taland, musiqa, tarixiy, manbaa, qo'llanma, ijodkor, sahna. Qoraqalpoq musiqasi, dostonchilik, jo'roqchilik, musiqiy ta'lim, an'anaviy ijrochilik, madaniy meros.

Bugungi globallashuv davrida musiqa san'ati insoniyat madaniyatining ajralmas qismi sifatida xalqaro maydonda yuksalib bormoqda. Ayniqsa, jahon musiqa san'atida malakali ijrochilarni tayyorlash dolzarb muammolardan biriga aylangan. Chunki ijrochilik nafaqat texnik mahoratni, balki chuqur musiqiy tafakkurni, estetik didni va xalqaro madaniy kontekstni tushunishni talab qiladi. Jahon miqyosida professional ijrochilarni tayyorlashda quyidagi asosiy muammolar mavjud:

1. Ta'lim tizimidagi farqlar – Turli mamlakatlarda musiqa ta'limi darajasi va metodikasi bir-biridan farq qiladi. Bu esa xalqaro darajada yagona standartlar yo'qligiga olib kelmoqda.

2. Madaniy-barqarorlik muammolari – Ko‘plab iqtidorli yoshlar o‘z ona yurti madaniyatidan uzoqlashib, boshqa musiqiy an‘analarga moslashishga majbur bo‘ladi, bu esa ularning individual uslubini shakllantirishiga salbiy ta‘sir ko‘rsatadi.

3. Amaliy sahna tajribasi yetishmasligi – Malakali ijrochilarni shakllantirishda sahna tajribasi muhim o‘rin tutadi. Ammo ko‘plab o‘quvchilar bunday imkoniyatlardan mahrum.

4. Texnologik imkoniyatlar va moliyaviy resurslar yetishmasligi – Raqamli texnologiyalar rivojlanayotgan bir paytda, har bir musiqachining zamonaviy asbob-uskunalar va dasturlardan foydalanish imkoniyati yo‘q.

Shuningdek, malakali pedagoglar tanqisligi, musiqiy tanlov va festivallarning kamligi ham ushbu muammoni chuqurlashtirmoqda. Malakali ijrochilarni tayyorlash yo‘lida eng avvalo, zamonaviy va xalqaro talablar asosida tuzilgan o‘quv dasturlarini ishlab chiqish, amaliyotga yo‘naltirilgan ta‘limni yo‘lga qo‘yish hamda yosh iste‘dodlarni qo‘llab-quvvatlash zarur. Madaniyatlararo muloqotni kuchaytirish, xalqaro tajriba almashuvlarini yo‘lga qo‘yish esa jahon musiqa san‘atida yetuk ijrochilarni tarbiyalashda muhim omillardan biri hisoblanadi. Musiqa san‘ati har bir xalqning ma‘naviy boyligini, estetik qarashlarini va madaniy merosini aks ettiruvchi yuksak san‘at turi hisoblanadi. Bugungi globallashtirish sharoitida jahon musiqa makonida malakali ijrochilarni tayyorlash tobora dolzarb bo‘lib bormoqda. Ayniqsa, O‘zbekistonda musiqa san‘atini rivojlantirish, yosh iste‘dodlarni kashf qilish va ularni xalqaro miqyosda tanitish muhim vazifalardan biridir. Shu bois jahon va milliy darajada professional ijrochilarni tayyorlashda mavjud muammolarni chuqur tahlil qilish zarur.

Jahon miqyosida malakali ijrochilarni tayyorlashda quyidagi muammolar mavjud:

1. O‘quv dasturlarining zamonaviy standartlarga to‘liq mos emasligi – Ko‘plab davlatlarda, jumladan O‘zbekistonda ham, musiqa ta‘limi dasturlarida amaliyotdan ko‘ra nazariyaga ko‘proq urg‘u beriladi. Bu esa ijrochilik mahoratini yetarlicha rivojlantirishga to‘sqinlik qiladi.

2. Sahna tajribasining yetishmasligi – O‘zbekistonda yosh musiqachilar uchun konsertlar, tanlovlar va festivallarning soni oshayotganiga qaramay, bu hali barcha iqtidorlarni qamrab olish darajasida emas. Sifatli sahna tajribasi esa har bir ijrochining mahoratini oshiradi.

3. Milliy va jahon musiqasini uyg'unlashtirish muammosi – Ko'pchilik yoshlar jahon musiqasiga intilayotgan bir paytda, milliy musiqiy an'analarni chuqur o'rganmayapti. Bu esa ularning ijodida o'ziga xoslik yetishmasligiga olib keladi. Shu bilan birga, milliy maktablarning jahon san'ati bilan uyg'unlashuv mexanizmlari hali to'liq shakllanmagan.

4. Kadrlar muammosi – O'zbekistonda malakali pedagoglar, ustoz san'atkorlar soni yetarli bo'lsa-da, ularning hududlar bo'yicha taqsimoti teng emas. Ayni paytda zamonaviy texnologiyalardan foydalanishda ham ma'lum cheklovlar mavjud.

5. Moliyaviy va moddiy-texnik baza yetishmasligi – Musiqa ta'lim muassasalari, ayniqsa viloyatlardagi maktablar, ba'zida zamonaviy cholg'ular, jihozlar va ovoz texnikasiga muhtoj bo'lib kelmoqda. Bu esa o'quvchilarning to'laqonli o'sishiga to'sqinlik qiladi.

Jahon va O'zbekiston musiqa san'atida malakali ijrochilarni tayyorlash uchun bir nechta ustuvor yo'nalishlarda ish olib borish zarur:

- Ta'lim dasturlarini xalqaro standartlarga moslashtirish,
- Yosh iste'dodlar uchun sahna amaliyotini kengaytirish,
- Milliy va jahon musiqasini uyg'unlashtirishga xizmat qiluvchi kreativ loyihalarni qo'llab-quvvatlash,
- Texnik bazani mustahkamlash va raqamli texnologiyalarni keng joriy etish,
- Ustoz-shogird an'anasini rivojlantirish va hududlarda teng imkoniyatlar yaratish.

Agar bu yo'nalishlarda tizimli chora-tadbirlar ko'rilsa, O'zbekistonda ham jahon miqyosida tan olinadigan, malakali va o'ziga xos ijrochilar yetishib chiqishiga shubha yo'q.

Musiqa san'ati har bir xalqning ruhiy boyligi, tarixiy xotirasi va madaniy o'zligini ifodalovchi kuchli vositadir. Qoraqalpoq xalqining epik musiqiy an'analari esa bu jihatdan alohida o'ringa ega. Biroq zamonaviy davrda ushbu merosni saqlash va uni davom ettiruvchi malakali ijrochilarni tayyorlash borasida qator muammolar mavjud.

Ta'lim tizimi va kadrlar masalasi: An'anaviy musiqiy san'atni saqlash va rivojlantirishda eng muhim omillardan biri — bu malakali o'qituvchilar va to'g'ri shakllangan ta'lim tizimidir. Hozirda ko'plab musiqiy maktablarda epik janrlarga

ixtisoslashgan dasturlar yo‘q yoki yetarli darajada ishlaymaydi. Qoraqalpog‘ hududidagi ayrim san‘at maktablarida jo‘roqchilik va dostonchilik bo‘yicha mutaxassislarning yetishmasligi kuzatiladi (Qosimov, 2019).

An‘anaviy musiqaga qiziqishning kamayishi: Globalizatsiya va raqamli madaniyatning tez sur‘atlarda rivojlanishi natijasida yoshlar orasida zamonaviy musiqaga qiziqish ortib bormoqda. Bu holat, o‘z navbatida, an‘anaviy ijrochilikka bo‘lgan ehtiyojni kamaytirmoqda. Aksariyat yoshlar zamonaviy estrada yoki xorijiy janrlarga moyil bo‘lib, doston yoki aytimlarga befarq qarashmoqda (UNESCO hisobotlari, 2021).

Moddiy-texnik bazaning zaifligi: Musiqa maktablari va darsliklar zamonaviy talabga javob bermaydi. An‘anaviy cholg‘u asboblarning (masalan, dutor, gijjak) sifatli nusxalari va ularni sozlash uchun zarur sharoitlar yetishmaydi. Bundan tashqari, ovoz yozish studiyalari va sahna uskunalari kabi vositalar ham yetarli emas (Karimbergenov, 2020).

Malakali ustozlarning yetishmasligi: Ko‘pgina ustozlar nafaqaga chiqqan yoki zamonaviy pedagogik yondashuvlarni to‘liq egallamagan. Shuningdek, yangi avlod ustozlarini tayyorlash tizimi hali yo‘lga qo‘yilmagan. Bu esa ijrochilikda ustoz-shogird an‘anasining uzilishiga olib kelmoqda.

Xulosa va takliflar

Yuqorida keltirilgan muammolarni bartaraf etish uchun quyidagi chora-tadbirlar taklif qilinadi:

1. An‘anaviy musiqani o‘rgatish bo‘yicha maxsus o‘quv dasturlarini ishlab chiqish va amaliyotga joriy etish.
2. Madaniy grantlar va stipendiyalar orqali dostonchi, jo‘roqchi va cholg‘uchi yoshlarni rag‘batlantirish.
3. Ustoz-shogird tizimini tiklash, tajribali ijrochilarni rasmiy tarzda o‘qituvchilik faoliyatiga jalb qilish.
4. Ommaviy axborot vositalari va internet platformalarda an‘anaviy musiqani keng targ‘ib qilish.
5. Milliy va xalqaro musiqiy festival, tanlov va seminarlar orqali yosh ijrochilarni namoyon qilish.

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GIMNASTIK MASHIQLARNI O'RGATISH METODIKASI

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ANATATSIYA: Gimnastik mashqlarni o'rgatish metodikasi ta'lim jarayonining samaradorligini oshirishga qaratilgan. Ushbu maqolada, mashqlarni bosqichma-bosqich o'rgatish usullari, o'quvchilarning yosh va tayyorgarlik darajalariga moslashgan metodlar tahlil qilinadi. Shuningdek, jismoniy tayyorgarlikni yanada rivojlantirish uchun motivatsiya va psixologik jihatlar ko'rib chiqiladi.

Kalit so'zlar: Gimnastika, metodika, mashqlar, o'rgatish, ta'lim, jismoniy tarbiya

АННОТАЦИЯ: МЕТОДИКА ОБУЧЕНИЯ ГИМНАСТИЧЕСКИМ УПРАЖНЕНИЯМ НАПРАВЛЕНА НА ПОВЫШЕНИЕ ЭФФЕКТИВНОСТИ ОБУЧЕНИЯ. В СТАТЬЕ АНАЛИЗИРУЮТСЯ ПОЭТАПНЫЕ МЕТОДЫ ТРЕНИРОВКИ С УЧЕТОМ ВОЗРАСТА И УРОВНЯ ПОДГОТОВКИ УЧЕНИКОВ. ТАКЖЕ РАССМАТРИВАЮТСЯ ВОПРОСЫ МОТИВАЦИИ И ПСИХОЛОГИЧЕСКОЙ ПОДДЕРЖКИ ДЛЯ УЛУЧШЕНИЯ ФИЗИЧЕСКОЙ ПОДГОТОВКИ.

Ключевые слова: Гимнастика, методика, упражнения, обучение, образование, физическая подготовка.

Abstract: The methodology of teaching gymnastics exercises aims to enhance educational efficiency. This article analyzes step-by-step training techniques adapted

to students' age and fitness levels. Motivation and psychological aspects for better physical preparedness are also discussed.

Keywords: Gymnastics, methodology, exercises, teaching, education, physical training

Kirish

Gimnastika mashqlami o'rgatishni muvaffaqiyatli tashkil etishning birinchi sharti o'quvchining tayyorlik darajasini aniq baholashdir. Bunda o'quvchining potensial imkoniyatlari quyidagi ko'rsatkichlarga binoan baholanadi:

a) harakat tayyorgarligi (o'zlashtirgan harakatlarining hajmi va xarakteri, harakatlarni o'rganishdagi tipik qiyinchiliklar, o'quvchida yangi harakatlarga o'xshash harakat tajribasining mavjudligi;

b) jismoniy tayyorgarligi (yangi harakatni o'rganib olishda hal qiluvchi ahamiyatga ega bo'lgan xislatlarning kamolot darajasi);

d) psixik xislatlarining (o'quvchilardagi, qat'iyligi, uzoq vaqt davom etadigan asabiy zo'riqish reaksiyasi va boshqa shaxsiy xislatlarining) qay darajada rivoj topgani. O'quvchining qobiliyatini baholash xarakteri ayni chog'da qanday mashq o'rganilayotganligiga bog'liq. Gimnastika mashqlari esa nihoyatda xilma-xil, shuning uchun yangi harakat o'rganilayotganligi, har bir konkret holda o'quvchining imkoniyatlarini o'zgarib turishi mumkin. Ikkinchi shart: o'rgatish dasturini harakat tuzilishlarini tahlil qilish va o'quvchining individual xususiyatlarini bilish asosida tuzish. O'qitish dasturi algoritmik topshiriq, chiziqli dastur tarzida yoziladi. Gimnastika mashqlarining texnikasi murakkabligi sari gimnastik samaradorligi ham orta boradi

Gimnastik mashqlarni o'rgatish metodikasi jismoniy tarbiya sohasida muhim o'rin tutadi. Bu jarayon o'quvchilarning jismoniy tayyorgarligini, muvozanatini, kuchini va moslashuvchanligini rivojlantirishga yordam beradi.

Gimnastikani o'rgatish uchun asosiy metodik prinsiplar quyidagilar:

1. Boshlang'ich tayyorgarlik: O'quvchilarning jismoniy tayyorgarlik darajasini aniqlash va ularga mos keluvchi mashqlarni tanlash.

2. Bosqichma-bosqich o'rgatish: Mashqlarni oddiydan murakkabga, osonlardan qiyinlarga o'tish orqali o'rgatish. Bu o'quvchilarga o'zlarini qulay his qilishlariga yordam beradi.

3. Haqiqiy va ko'rgazmali o'gitlar: Mashqni ko'rsatish va keyin o'quvchilarga amaliyot qildirish.

4. Motivatsiya: O'quvchilarni mashqlar bajarishga undash uchun e'tibor berish. Ularni rag'batlantirish va muvaffaqiyatlarini ta'kidlash.

5. Nazorat va fikr bildirish: O'quvchilarning yutuqlarini kuzatish va mos ravishda fikr bildirish muhimdir. Bu o'quvchilarning o'zlarini yanada yaxshilashlariga yordam beradi.

Gimnastika nafaqat jismoniy tayyorgarlik, balki ijtimoiy va psixologik rivojlanishga ham hissa qo'shadi. O'quvchilar o'zaro hamkorlik qilish, jamoaviylik hissini shakllantirish va sog'lom raqobat muhitini yaratilishida muhim ahamiyatga ega.

Foydalanuvchi adabiyotlar:

1. S. A. Sargisov - "Jismoniy tarbiya va sport mashg'ulotlari". Ushbu kitobda jismoniy tarbiya metodikasi va turli sport turlari, jumladan gimnastika bo'yicha maslahatlar berilgan.

2. V. V. Sokolov - "Gimnastika: Teoriya va metodika". O'quvchilarga gimnastika mashqlari o'rgatish jarayoni, metodik yondashuvlar va rejalar bilan tanishtiradi.

3. A. A. Qodirov - "Jismoniy tarbiya metodikasi". Bu asarda jismoniy tarbiya bo'yicha metodologik asoslar, shuningdek gimnastika mashqlarini o'rgatish uslublari keltirilgan.

4. M. M. Boboev - "O'qituvchi uchun gimnastika metodikasi". Gimnastika mashqlarini o'rgatishda ko'rsatmalarga ega bo'lgan resurs.

5. Oliy ta'lim muassasalari uchun taqdim etilgan metodik qo'llanmalar. Bu qo'llanmalarda tajribali o'qituvchilar tomonidan ishlab chiqilgan amaliy mashqlar va yakuniy baho tizimlari.

OZIQ-OVQAT TRANSMILLIY KORPORATSIYALARI VA GEOSIYOSIY SUVERENITET, NESTLE MODEL ASOSIDA.

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Annotatsiya. Ushbu tezisda Nestle transmilliy korporatsiyasining zamonaviy global geosiyosiy tizimdagi o'rni va ta'siri tahlil qilinadi. Nestle dunyodagi eng yirik oziq-ovqat va ichimliklar ishlab chiqaruvchi korporatsiyalardan biri sifatida nafaqat iqtisodiy aktor, balki muayyan regionlarda siyosiy va ijtimoiy dinamikaga ta'sir ko'rsatuvchi geosiyosiy subyekt sifatida qaraladi. Ishda Nestlé'ning suv resurslariga egalik qilish, oziq-ovqat zanjirlari orqali mintaqaviy bozorlarni nazorat qilish, shuningdek, hukumatlar bilan o'zaro manfaatli hamkorlik siyosati xususan, hokimiyatga va siyosiy qarorlar qabul qilishga ta'sir mexanizmlari o'rganiladi.

Kalit so'zlar. Transmilliy korporatsiyalar, oziq-ovqat, geosiyosiy ta'sir, suv resurslari, siyosiy qarorlar qabul qilish.

Transmilliy oziq-ovqat korporatsiyalari (TOOK) - bir nechta davlatlarda faoliyat yuritadigan, global oziq-ovqat tizimiga chuqur ta'sir ko'rsatadigan yirik kompaniyalardir. Ular nafaqat iqtisodiy, balki siyosiy va ijtimoiy jihatdan ham muhim rol o'ynaydi.

Transmilliy oziq-ovqat korporatsiyalari rivojlanayotgan mamlakatlarda qishloq xo'jaligi, oziq-ovqat xavfsizligi, mahalliy daromadlar, ta'lim, bandlik, mehnat sharoitlari, atrof-muhit, mahalliy firmalar, texnologiya, ovqatlanish va iste'mol kabi sohalarga sezilarli ta'sir ko'rsatmoqda [1]. Xususan, Nestle transmilliy korporatsiyasi ham o'zining sifatli mahsulotlari, raqamli marketing shuningdek kuchli PR orqali yer yuzining har bir burchagining rastalarini egallashga ulgurdi.

Ushbu kompaniya 189 ta mamlakatda o'z mahsulotlarini sotadi va 340 ta zavodga egalik qilmoqda. 2023-yilda kompaniya umumiy 93 milliard Shveytsariya

franki (CHF) miqdorida savdo hajmiga erishdi. Uning global oziq-ovqat va ichimlik sanoatidagi ulushi taxminan 10% ga teng. 30 000 dan ortiq mahsulotni ishlab chiqaradi, 2000 dan ortiq global va mahalliy brendlarga egadir.[2]

Korporatsiya nafaqat iqtisodiy jihatdan balki geosiyosiy tomonlama ham o'zining ma'lum bir pozitsiyasiga egadir. Nestle transmilliy korporatsiyasi Shimoliy Amerika, ayniqsa AQSh va Kanadada o'zining faoliyatini nafaqat oddiy tijoriy foyda keltiruvchi kompaniya sifatida, balki institutsional va geoiqtisodiy aktor sifatida olib boradi. Nestle bu mintaqada faqat oziq-ovqat va ichimliklar bilan shug'ullanuvchi kompaniya emas - u kapital harakati, resurslar ustidan nazorat, siyosiy ta'sir va normativ muhitga bosim orqali o'zining geosiyosiy strategiyasini amalga oshirmoqda.

Korporatsiyaning eng katta ulushi Shimoliy va Janubiy Amerika qit'asiga to'g'ri keladi. Bu yerdagi logistika ham ancha qulay hisoblanadi. Masalan, avtomobil logistikasi orqali asosan davlat ichidagi qisqa masofali talablarni qondirishga qaratiladi. I-70 trassasi orqali St. Louis (Missuri)ga undan Allentown (Pensilvaniya) shtatiga Purina brendi ostidagi hayvonlar uchun oziq-ovqat yetkaziladi.

Temir yo'l asosan katta hajmdagi va uzoq masofali yuklar uchun foydalaniladi. Masalan, Guelph (Ontario, Kanada) dan Chicago (Illinois)ga Umumiy oziq-ovqat mahsulotlari, konservalar, bolalar ovqati yetkazib beriladi.

Dengiz va daryo transportlari asosan ichki suv yo'li va xalqaro darajadagi eksport uchun. Los Angeles, Savannah, New York portlari orqali Osiyo (masalan, Yaponiya, Xitoy), Yevropa (masalan, Germaniya, Buyuk Britaniya), Janubiy Amerika (masalan, Braziliya) bozorlariga mahsulot eksport qilinadi. Havo yo'llari orqali asosan tez ayniydigan, tez sifati buziladigan mahsulotlar butun dunyoga yetkazib beriladi.

Ushbu TMK ning Amerika qit'asidagi geosiyosiy xarakteriga yuzlansak, birinchi o'rinda zaxiraga boy hudud masalasi ko'zga tashlanadi. Xususan, korporatsiyaning bosh ofisining o'zgartirilganligining o'zida ham juda katta geosiyosiy manfaat yotadi. Ya'ni uning dastlabki bosh ofisi Virjiniya shtatida edi keyinchalik u Vashingtonga ko'chiriladi. Bundan ko'zlangan asosiy maqsad faqatgina logistik yoki operatsion samaradorlik emas, balki aniq siyosiy-geoiqtisodiy strategiya yotadi. Bunda federal siyosiy markazga yaqinlashish - lobbilash kuchini oshirish. Nestle uchun Vashingtonga yaqin joylashish Kongress, FDA (Food and Drug Administration), EPA (Environmental Protection Agency) va boshqa federal regulyator organlar bilan bevosita ishlash imkoniyatini kengaytirdi.

Bu esa siyosiy qaror qabul qilish tizimlariga yaqin turish orqali qonunchilik, ekologik me'yorlar va oziq-ovqat reglamentatsiyasini o'z manfaatlariga moslashtirish imkonini beradi. Masalan, Nestleda faol ishlovchi lobbi firmalar orqali suv reglamentatsiyasi va oziq-ovqat xavfsizligi qonunlarining o'ziga qulay versiyalarini ilgari surgan. Shuningdek, kompaniya boshqa geosiyosiy bosim va manfaatlar yuzasidan ham markazini o'zgartirgan. Masalan, Kaliforniyada soliq tizimi juda qattiqligi, ekofaollarning keng noroziliklari, ichimlik suvi ustidan qat'iy reglamentlar plastik chiqindilarni kamaytirish talablari va ishchi huquqlarini kuchli himoya qilish qonunlari bilan mashhurdir. Nestle har doimgidek o'z manfaatlarini boshqalarnikidan ustun qo'ygan. Xususan, Nestle uchun operatsion xarajatlar va siyosiy bosimni oshirgan. Kaliforniyada kompaniya Arrowhead brendi uchun yerosti suvini olishda ekologik faollar tomonidan yirik tanqid ostida qolgan, hatto sudga tortilgan masalan, San Bernardino National Forestdagi suv manbalari ishi. Bu ish ortidan kompaniya brendining pasayishiga olib kelgan edi.

Vashington esa, me'yoriy jihatdan yumshoq va siyosiy-iqtisodiy jihatdan korporativ faoliyatga ko'proq muvofiqlashtirilgan yondashuvga ega kompaniyalarga qaratilgan grantlar va infratuzilma qo'llovi taklif qilgan. Shuningdek, bu shtatda soliqlari bo'yicha qo'shimcha imtiyozlar ham mavjud bo'lgan.

Transmilliy korporatsiyalar tomonidan olib borilayotgan yangi turdagi geosiyosat bugungi global tartibda davlatlarning klassik suverenitet tushunchasini jiddiy qayta ko'rib chiqishga undamoqda[3]. Ayniqsa, iqlim o'zgarishi, siyosiy beqarorlik va geoiqtisodiy vakuumlar sharoitida Nestle kabi yirik korporatsiyalar o'z faoliyatini nafaqat iqtisodiy manfaatlar, balki resurslar ustidan strategik hukmronlik doirasida ham olib bormoqda.

Korporatsiyaning "tabiiy resurslarni samarali boshqarish" degan diskursi, mohiyatan, infratuzilma ustidan hukmronlikni legitimlashtirishga qaratilgan bo'lib, suv manbalarini xususiylashtirishga yo'l ochadi. U mahalliy jamoalarni "korruptsiyalashgan, samarasiz" boshqaruv sifatida diskreditatsiya qilib, o'zini "mas'ul ekologik aktor" sifatida ko'rsatadi[4]. Bunday yondashuv, aslida, suv ustidan nazorat orqali mintaqaviy siyosiy tuzilmalarni zaiflashtirishga xizmat qiladi - bu esa biogeosiyosiy egemonlik shaklidir.

Misol uchun, Braziliyada Nestle Amazoniya suv manbalariga kirish uchun qator quyi darajadagi infratuzilma loyihalarini moliyalashtirib, mahalliy hokimiyatlar bilan

shartnomalar imzolagan[5]. Rasmiy ravishda bu “rivojlanish loyihalari” sifatida ko‘rsatilsa-da, aslida ular orqali kompaniya strategik resurs ustidan uzoq muddatli nazoratni ta’minlab kelmoqda.

Xulosa.

Nestle bugungi global iqtisodiyotda faqat oziq-ovqat yetkazib beruvchi emas, balki infratuzilma, logistika va resurs boshqaruvi orqali xalqaro siyosatga bilvosita ta’sir ko‘rsatuvchi yirik geoiqtisodiy kuchga aylangan. U turli mintaqalarda mahalliy bozor va siyosiy muhitga moslashgan strategiyalarni qo‘llab, ko‘plab davlatlarda o‘z iqtisodiy faoliyatini mustahkamladi. Bu esa korporatsiyani xalqaro munosabatlarning yangi, nodavlat, ammo kuchli subyekti sifatida xususiyatlanadi.

Foydalanilgan adabiyotlar ro‘yxati.

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**ENDOKRIN TIZIM: MARKAZIY ENDOKRIN BEZLAR (GIPOTALAMUS,
GIPOFIZ, EPIFIZ)**

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Annotatsiya : Mazkur maqolada markaziy endokrin tizimning asosiy tarkibiy qismlari — gipotalamus, gipofiz va epifizning gistologik, sitologik va embriologik rivojlanish xususiyatlari o'rganilgan. Gipotalamus va gipofizning funksional birligi, hujayraviy tarkibi, to'qima tuzilishi va endokrin regulatsiyadagi o'zaro ta'siri yevropalik olimlarning ilmiy tadqiqotlari asosida tahlil qilinadi. Shuningdek, epifiz bezining fotoreseptor funksiyasi va melatonin sekretsiyasi orqali sirkadiyal ritmlarni boshqarishdagi roli yoritiladi.

Аннотация : В статье рассматриваются морфофункциональные особенности гипоталамуса, гипофиза и эпифиза как центральных желез эндокринной системы. Проанализированы их клеточная структура, гистологическое строение и эмбриональное развитие на основе европейских научных источников. Особое внимание уделено нейроэндокринной интеграции гипоталамуса и гипофиза, а также роли эпифиза в регуляции циркадных ритмов через секрецию мелатонина.

Annotation : This article explores the central endocrine organs—hypothalamus, pituitary gland, and pineal gland—from a histological, cytological, and embryological perspective. Based on European scientific literature, the study emphasizes the neuroendocrine integration between the hypothalamus and pituitary, their cellular composition, and tissue architecture. It also highlights the pineal gland's photoreceptor function and its involvement in circadian rhythm regulation via melatonin secretion.

Kalit so'zlar: Markaziy endokrin tizim, Gistologiya, Sitologiya, Gipotalamus, Gipofiz, Epifiz, Neyrosekretor hujayralar, Endokrin regulatsiya, Melatonin, Embrional rivojlanish.

Ключевые слова: Центральная эндокринная система, Гистология, Цитология, Гипоталамус, Гипофиз, Эпифиз, Нейросекреторные клетки, Эндокринная регуляция, Мелатонин, Эмбриональное развитие.

Keywords: Central endocrine system, Histology, Cytology, Hypothalamus, Pituitary gland, Pineal gland, Neurosecretory cells, Endocrine regulation, Melatonin, Embryonic development.

Mavzuning xozirgi kunda dunyo bo'yicha dolzarbligi

Markaziy endokrin tizim — gipotalamus, gipofiz va epifiz bezlari — inson organizmidagi gomeostazni ta'minlovchi asosiy tuzilmalardan hisoblanadi. Ularning gistologik, sitologik va embriologik xususiyatlarini chuqur o'rganish zamonaviy tibbiyotda dolzarb ahamiyat kasb etmoqda. Gipotalamus va gipofiz o'rtasidagi neyroendokrin aloqa organizmning stressga javobi, metabolism, o'sish va reproduktiv funksiyalarni boshqarishda muhim rol o'ynaydi. Gipotalamus tomonidan ishlab chiqariladigan gormonlar gipofiz faoliyatini rag'batlantiradi yoki bostiradi, bu esa boshqa endokrin bezlarning gormon ishlab chiqarishini nazorat qiladi. Epifiz bezi tomonidan ishlab chiqariladigan melatonin gormoni sirkadiyalik ritmlarni, ya'ni uyqu va uyg'oqlik siklini tartibga soladi. Epifizning faoliyati yorug'lik va qorong'ilikka bog'liq bo'lib, bu bezning funktsional ahamiyatini yanada oshiradi. Shuningdek, gipotalamus-pituitariya-gonadal o'qi orqali gormonlar ishlab chiqarilishi va ularning o'zaro ta'siri pubertat davrida muhim rol o'ynaydi. Bu jarayonlar epigenetik mexanizmlar, xususan, DNK metilatsiyasi orqali tartibga solinadi. Markaziy endokrin tizimning bu murakkab tuzilmalari va ularning o'zaro aloqalari zamonaviy tibbiyotda,

ayniqsa, endokrin kasalliklarni aniqlash va davolashda muhim ahamiyatga ega. Ularning gistologik, sitologik va embriologik xususiyatlarini chuqur oʻrganish esa yangi diagnostik va terapevtik yondashuvlarni ishlab chiqishda asos boʻlib xizmat qiladi.

Kirish

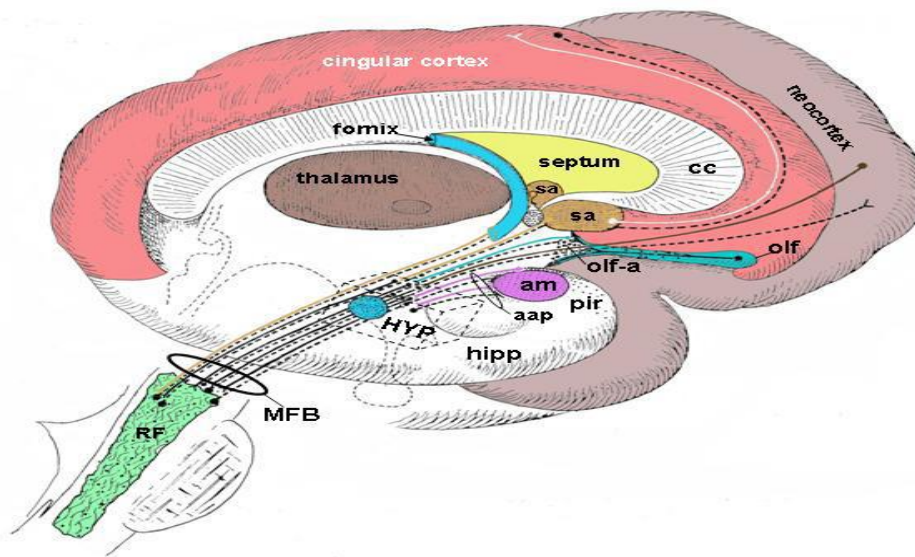
Endokrin tizim inson organizmida gomeostazni taʼminlovchi asosiy nazoratchi tizimlardan biri boʻlib, uning markaziy komponentlari — gipotalamus, gipofiz va epifiz bezlari — murakkab funksional va morfologik tuzilmalarga ega. Ushbu tuzilmalar nerv va endokrin tizimlar oʻrtasida bogʻlovchi boʻlib, ularning oʻzaro integratsiyasi organizmning metabolik jarayonlari, oʻsish, rivojlanish, reproduktiv funksiyalar, stressga javob reaksiyalari va sirkadiyalik ritmlarini boshqarishda muhim oʻrin tutadi. Zamonaviy tibbiyotda gipotalamus-gipofiz-epifiz oʻqi faoliyatini chuqur oʻrganish, ayniqsa, molekulyar gistologiya, sitologiya va embriologiya fanlari asosida, endokrin kasalliklarning patogenezi anglash, ularni erta aniqlash va samarali davolashda muhim omil hisoblanadi. Yevropa ilmiy manbalariga asoslanib olib borilgan tadqiqotlar ushbu bezlarning hujayraviy tarkibi, differentsiallashtirish, gormon sekretsiyasi va retseptor mexanizmlarini chuqur oʻrganishga yoʻnaltirilgan. Ushbu maqolada gipotalamus, gipofiz va epifizning gistologik va sitologik xususiyatlari, shuningdek, ularning embriologik rivojlanish bosqichlari yoritiladi. Maqsad — markaziy endokrin bezlarning morfofunktsional ahamiyatini tahlil qilish va zamonaviy ilmiy yondashuvlar asosida baholashdir.

Asosiy qism

Gipotalamusning gistologik va sitologik tuzilishi

Gipotalamus diencephalonning ventral qismida joylashgan boʻlib, u markaziy asab tizimining muhim neyroendokrin markazidir. Gistologik jihatdan gipotalamus oʻnlab yadrolardan iborat boʻlib, ular pars supraoptika va paraventrikulyar sohalarda joylashgan neyrosekretor hujayralarni oʻz ichiga oladi. Bu hujayralar oksitotsin va vazopressin gormonlarini ishlab chiqaradi va gipofiz orqa boʻlimi orqali qon aylanishiga chiqaradi.

Sitologik tuzilishiga ko'ra, gipotalamusda asosiy hujayralar — neyrosekretor neyronlar, glial elementlar va kapillyar tizim mavjud. Neyronlarning aksonlari gipofiz orqa bo'limiga (nevrohipofizga) yo'naltirilgan bo'lib, gormonlar bu yerda to'planadi va ehtiyojga qarab chiqariladi. Gipotalamus, shuningdek, adenogipofizni nazorat qiluvchi liberin va statinlar kabi regulyator gormonlarni ishlab chiqaradi.

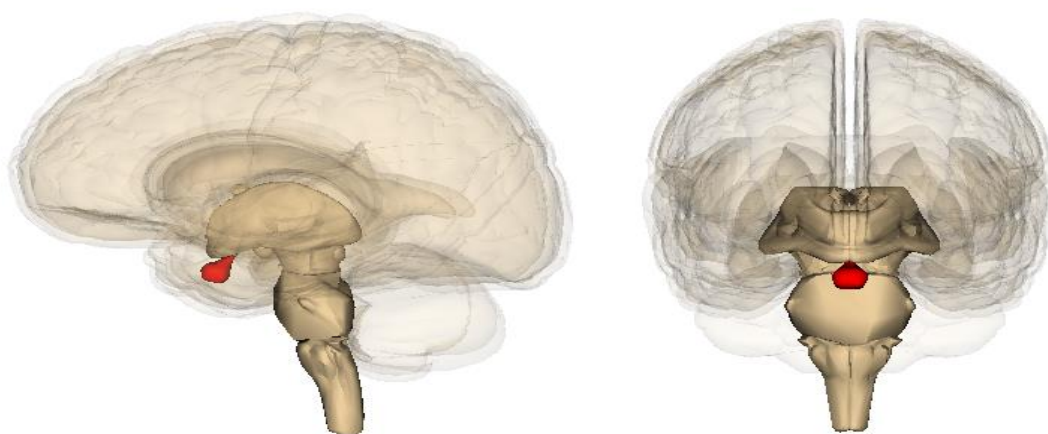


Gipofizning morfologiyasi va hujayraviy tarkibi

Gipofiz bezining rivojlanishi embriogenez davrida ikki manbadan: oldingi qismini (adenogipofiz) Rathke sumkasi ektodermidan va orqa qismini (nevrohipofiz) neyroektodermadan hosil bo'ladi. Bu morfologik tafovut gipofizning funksional farqlanishiga olib keladi.

Adenogipofiz uchta asosiy hujayradan iborat: acidofil, bazofil va xromofob hujayralar. Acidofil hujayralar somatotropin va prolaktin, bazofillar esa TSH, FSH, LH, ACTH kabi tropik gormonlarni ishlab chiqaradi. Nevrohipofiz esa gipotalamusda sintezlangan gormonlarni saqlaydi va chiqaradi.

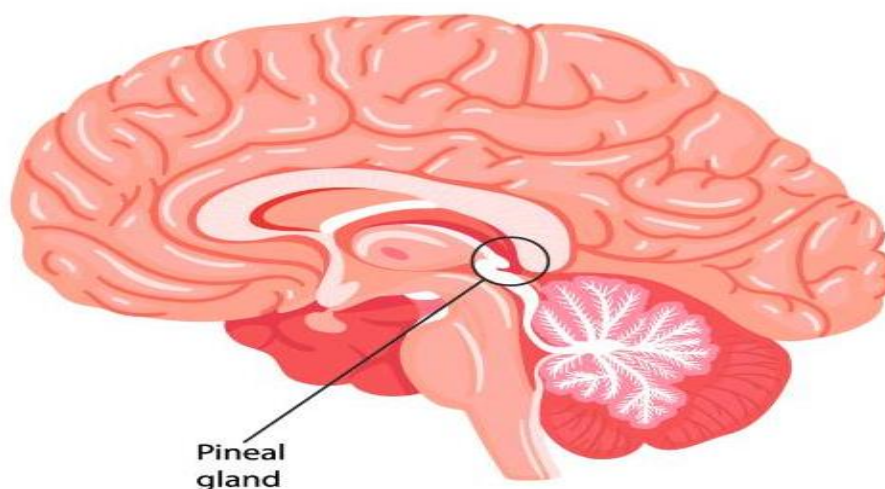
Gipofizning qon tomir ta'minoti g'oyat kuchli bo'lib, bu holat gormonlarning tez tarqalishini ta'minlaydi. Adenogipofizning portallar tizimi gipotalamus bilan funksional bog'liqlikni amalga oshiradi.



Epifiz (pineal bez) tuzilishi va funksiyasi

Epifiz — epitalamusda joylashgan kichik bez bo‘lib, asosan pinealositlar va glial hujayralardan iborat. Pinealositlar melatonin gormonini sintezlaydi. Melatonin ishlab chiqarilishi yorug‘lik-mavsumiy sikllarga bevosita bog‘liq: qorong‘ilikda sekretiya kuchayadi.

Yevropa adabiyotlarida epifizning fotoreseptor funksiyasi ham ta’kidlangan bo‘lib, u sirkadiyal ritmlarni, uyqu-uyg‘oqlik tsiklini, va ba’zi endokrin jarayonlarni tartibga soladi. Hujayraviy jihatdan, pinealositlarda yadro yirik, sitoplazmasi granulalar bilan to‘la, ularning faol sekretor xususiyatini ko‘rsatadi.



Embriologik rivojlanish xususiyatlari

Gipotalamus neyroektodermal manbadan rivojlanadi va markaziy asab tizimi bilan birgalikda shakllanadi. Gipofizning old va orqa qismlari turli embriologik manbaga ega bo‘lib, bu ularning turlicha funksional ixtisoslashuviga olib keladi. Epifiz ham neyroektodermadan rivojlanib, postnatal davrda to‘liq faol holatga keladi.

So‘nggi yillarda olib borilgan embriologik tadqiqotlar, xususan, immunogistokimyoviy usullar orqali ushbu bezlarning differentsiallanish jarayonlarini aniqlashga katta imkoniyat yaratmoqda. Bu esa tug‘ma endokrin buzilishlarni erta tashxislashda muhim ahamiyatga ega.

Tadqiqot maqsadi

Ushbu tadqiqotning asosiy maqsadi — markaziy endokrin tizimga kiruvchi gipotalamus, gipofiz va epifiz bezlarining gistologik, sitologik hamda embriologik tuzilishini tahlil qilish, ularning funksional o‘zaro bog‘liqligini ilmiy manbalar asosida yoritish, shuningdek, zamonaviy yondashuvlar orqali ushbu tuzilmalarning normal va patologik holatdagi o‘zgarishlarini tushuntirishdir.

Materiallar va usullar

Ushbu ilmiy maqola gipotalamus, gipofiz va epifiz bezlarining gistologik, sitologik va embriologik xususiyatlarini tahlil qilishga yo‘naltirilgan bo‘lib, tahlillar mavjud ilmiy adabiyotlari asosida amalga oshirildi. Tadqiqotda quyidagi metodologik yondashuvlar qo‘llanildi:

Adabiyotlar tahlili: Maqolani tayyorlashda ilmiy maqolalar, darsliklar, atlaslar va tadqiqot natijalari o‘z ichiga olgan kitoblardan foydalanildi.

Gistologik tahlil: Gipotalamus, gipofiz va epifizning mikroskopik tuzilmalari ularning to‘qima kesimlari asosida o‘rganildi. Har bir bezdagi asosiy hujayra tiplari va ularning joylashuvi, morfologik tuzilishi hamda gormon ishlab chiqarish xususiyatlari tahlil qilindi.

Embriologik manba tahlili: Bezlarning embrional rivojlanish bosqichlari embriologik atlaslar va zamonaviy morfogenezdagi ilmiy tadqiqotlar asosida tahlil qilindi.

Ilmiy solishtirma yondashuv: Gipotalamus, gipofiz va epifizning o‘zaro bog‘liqligi, ularning neyroendokrin regulatsiyadagi roli, turli yosh bosqichlarida va patologik holatlarda kuzatilgan o‘zgarishlar solishtirildi.

Mazkur usullar orqali markaziy endokrin bezlarning strukturaviy va funksional jihatlari chuqur o‘rganildi hamda nazariy tahlil orqali ularning klinik ahamiyati aniqlashtirildi.

Xulosa

Markaziy endokrin tizimga kiruvchi gipotalamus, gipofiz va epifiz bezlari organizmning neyroendokrin boshqaruvi, gomeostazni saqlash, sirkadiyalik ritmlarni tartibga solish va reproduktiv funksiyalarni boshqarishda beqiyos ahamiyat kasb etadi. Tadqiqot davomida ushbu bezlarning gistologik va sitologik tuzilishi, embriologik rivojlanish bosqichlari, ularning o‘zaro morfofunktsional aloqalari chuqur o‘rganildi. Gipotalamus va gipofiz o‘rtasidagi neyrosekretor aloqaning yuqori darajadagi uyg‘unligi, epifizning melatonin sekretsiyasi orqali biologik ritmlarni tartibga solishi zamonaviy tibbiyotda ushbu tuzilmalarni chuqur tahlil qilish zaruratini oshirmoqda. Yevropa adabiyotlariga asoslangan tahlillar ushbu bezlarning strukturaviy murakkabligi va funksional ixtisoslashuvining aniq mexanizmlarini yoritib berdi. Natijalarga ko‘ra, markaziy endokrin bezlarning gistologik va embriologik xususiyatlarini o‘rganish nafaqat fundamental ilm-fan uchun, balki klinik amaliyotda — ayniqsa endokrin buzilishlarning erta diagnostikasi va davolash strategiyalarini ishlab chiqishda ham muhim ahamiyatga ega ekanligi aniqlangan.

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BOLALARDA D VITAMINI YETISHMOVCHILIGIDA KLINIK VA LABORATOR O‘ZGARISHLAR

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Annotatsiya: Ushbu maqolada bolalar organizmida D vitaminining fiziologik ahamiyati, uning yetishmovchiligi bilan bog‘liq klinik belgilari va laborator ko‘rsatkichlardagi o‘zgarishlar yoritilgan. D vitamin defitsiti o‘sayotgan organizmda suyaklarning to‘g‘ri shakllanmasligi, mushak va asab tizimi faoliyatining buzilishi, immunitetning pasayishi kabi salbiy oqibatlariga olib kelishi mumkin. Tadqiqotda turli yosh guruhidagi bolalarda D vitamini yetishmovchiligi aniqlanishi, asosiy diagnostik metodlar, laborator ko‘rsatkichlar (kaltsiy, fosfor, paratireoid gormoni va boshqalar) tahlil qilinadi. Shuningdek, maqolada ushbu holatning oldini olish va davolashda zamonaviy yondashuvlar ham ko‘rib chiqiladi.

Kalit so‘zlar: D vitamini, bolalar, gipotrofiya, rahit, suyak deformatsiyasi, laborator ko‘rsatkichlar, kaltsiy, fosfor, profilaktika.

Kirish.

D vitamini bolalar organizmining o‘sishi va rivojlanishida, ayniqsa suyaklarning shakllanishi va mineralizatsiyasida muhim rol o‘ynaydi. Uning yetishmovchiligi butun dunyo bo‘ylab, ayniqsa chaqaloqlar va yosh bolalar orasida keng tarqalgan muammo hisoblanadi. D vitamini nafaqat kaltsiy va fosfor almashinuvini ta‘minlaydi, balki immun, mushak va asab tizimining sog‘lom faoliyat yuritishi uchun ham zarurdir. Bu vitamin yetishmovchiligi turli klinik belgilar — rahit, o‘sishning sekinlashuvi, mushak zaifligi, asabiylik, suyaklarning deformatsiyasi kabi holatlarga olib keladi. D vitamini tanqisligini erta aniqlash va davolash uzoq muddatli asoratlarning oldini olishda muhim ahamiyatga ega. Laborator tekshiruvlarda 25-gidroksivitamin D darajasining kamayishi, gipokaltsiyemiya, gipofosfatemiya va ishqoriy fosfatazaning oshishi asosiy diagnostik ko‘rsatkichlar sifatida baholanadi. Ushbu maqolada bolalarda D vitamini

yetishmovchiligi bilan bog'liq klinik va laborator o'zgarishlar, shuningdek, ularni aniqlash va oldini olish bo'yicha zamonaviy yondashuvlar yoritiladi.

Asosiy qism.

D vitamini organizmda bir qator biologik jarayonlarni tartibga soluvchi muhim moddadir. Uning asosiy vazifalari kaltsiy va fosfor moddalari almashinuvini boshqarish, suyak to'qimalarining normal rivojlanishini ta'minlash, immun tizimni mustahkamlash va ayrim gormonal funksiyalarni qo'llab-quvvatlashdan iborat. D vitamini organizmga ikki yo'l bilan tushadi: teriga quyosh nurlari ta'sirida sintez qilinadi (D3 vitamini — xolekalsiferol) yoki ovqat mahsulotlari orqali (D2 vitamini — ergokalsiferol). Ammo yosh bolalarda bu manbalar orqali yetarli miqdorda D vitamini qabul qilinmasligi ko'pincha tanqislikka olib keladi. D vitamini yetishmovchiligining sabablari:

1. Quyosh nuri yetishmasligi (kam yurish, tashqariga chiqmaslik, geografik hududlar, kiyimlar bilan to'sib qo'yish).
2. Ona suti bilan oziqlanishda D vitamini yetarli bo'lmasligi (ona sutidagi D vitamini miqdori past).
3. Parhezda yog'da eriydigan vitaminlarga boy mahsulotlarning yetishmasligi.
4. Ichki a'zolarining surunkali kasalliklari (gastrointestinal buzilishlar, buyrak va jigar yetishmovchiligi).
5. Genetik yoki metabolik muammolar..Klinik belgilari: D vitamini tanqisligi bolalarda asosan rahit kasalligi tarzida namoyon bo'ladi. Bu kasallikning klinik ko'rinishlari quyidagilardan iborat:

Bosh suyagining yumshashi (kraniotabes) Boshning notekis shakllanishi, katta botiqning kech yopilishi

Mushaklarning bo'shashishi va zaifligi Oyoqlarning «O» yoki «X» shaklida qiyshayishi Ko'krak qafasida deformatsiyalar («rozaning tasbihi», «to'qmoq» ko'krak,

Sezuvchanlikning oshishi, bezovtalik, terlash. Tishlarning kech chiqishi va emalining zaifligi. Laborator o'zgarishlar: D vitamini yetishmovchiligi laborator tekshiruvlar orqali aniq tasdiqlanadi: Qonda 25(OH)D (25-gidroksivitamin D) darajasining pasayishi — bu eng muhim diagnostik marker hisoblanadi. 20 ng/ml dan past bo'lishi tanqislikni ko'rsatadi. Gipokaltsiyemiya — qonda kaltsiy miqdorining

kamayishi. Gipofosfatemiya — qonda fosfor miqdorining kamayishi. Ishqoriy fosfatazaning (ALP) oshishi — suyaklarning o'sishiga bog'liq gormoni (PTH) darajasining ko'tarilishi — kompensator reaksiya sifatida.

D vitamini yetishmovchiligining oqibatlari: Agar bu holat o'z vaqtida aniqlanmasa va davolanmasa, bola organizmida doimiy suyak deformatsiyalari, bo'y o'sishining sekinlashuvi, tishlarning noto'g'ri shakllanishi, mushaklarning kuchsizligi va hatto nevrologik buzilishlar yuzaga kelishi mumkin. Og'ir hollarda konvulsiyalar, gipokalsemik krizlar kuzatiladi. Profilaktika va davolash: Profilaktika uchun quyidagilar tavsiya etiladi: Har kuni 15–30 daqiqa quyoshda yurish. Homilador va emizikli ayollar uchun D vitamini qo'shimchalarini qabul qilish. Sog'lom parhez — baliq yog'i, tuxum sarig'i, jigar, sariyog' kabi D vitaminiga boy mahsulotlarni iste'mol qilish. Pediatrik tavsiyaga ko'ra 0–2 yoshgacha bo'lgan bolalarga kunlik 400–800 IU D vitamini berish.

Davolash esa individual yondashuv asosida olib boriladi. D vitamini darajasiga qarab, 1000–5000 IU dozalar tayinlanadi va holatga qarab 4–6 hafta davomida kuzatuvga olinadi.

Xulosa:

D vitamini bolalar salomatligi uchun nihoyatda muhim bo'lgan modda bo'lib, uning yetishmovchiligi suyaklarning to'g'ri shakllanmasligi, mushak zaifligi, asab tizimi faoliyatining buzilishi va immunitetning pasayishi kabi jiddiy asoratlarga olib keladi. D vitamin tanqisligi, ayniqsa, erta yoshdagi bolalar orasida keng tarqalgan bo'lib, ko'pincha rahat kasalligi tarzida namoyon bo'ladi. Ushbu holatni erta bosqichda aniqlash va zarur choralarni ko'rish orqali bolalarda sog'lom rivojlanishni ta'minlash mumkin. Diagnostikada klinik belgilarga e'tibor qaratish bilan birga, laborator tekshiruvlar – xususan, 25(OH)D, kaltsiy, fosfor va ALP darajalarini baholash muhim ahamiyatga ega. D vitaminining yetarli darajada qabul qilinishi va profilaktik choralar ko'rilishi orqali ushbu muammoning oldi olinadi. Shuning uchun pediatrik amaliyotda D vitamini yetishmovchiligini barvaqt aniqlash, profilaktik dozalarni tavsiya etish va ota-onalar ongini oshirish asosiy vazifalardan biri bo'lib qolmoqda.

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SAN'AT VA MADANIYAT SOHASIDA BOSHQARUV FAOLIYATINING ZAMONAVIY YO'NALISHLARI

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Annotatsiya: Ushbu maqolada san'at va madaniyat sohasida boshqaruv faoliyatining zamonaviy yo'nalishlari tahlil qilingan. Madaniy tashkilotlarda menejerlik funksiyalari, ijodiy jarayonlarni boshqarish usullari va innovatsion yondashuvlarning ahamiyati yoritilgan. Shuningdek, globalizatsiya, raqamli texnologiyalar va zamonaviy bozor talablarining boshqaruvga ta'siri haqida fikr yuritilgan.

Kalit so'zlar: madaniyat menejmenti, san'at boshqaruvi, zamonaviy yondashuvlar, innovatsiya, ijodiy sektor, raqamli transformatsiya.

Аннотация: В данной статье рассматриваются современные направления управленческой деятельности в сфере искусства и культуры. Анализируются функции менеджмента в культурных организациях, методы управления творческими процессами и значение инновационных подходов. Особое внимание уделяется влиянию глобализации, цифровых технологий и рыночных требований на процессы управления.

Ключевые слова: менеджмент культуры, управление в искусстве, современные подходы, инновации, творческий сектор, цифровая трансформация

Abstract: This article explores the modern directions of management activities in the field of art and culture. It analyzes management functions within cultural organizations, methods of managing creative processes, and the importance of innovative approaches. The impact of globalization, digital technologies, and contemporary market demands on cultural management is also discussed.

Keywords: cultural management, art administration, modern approaches, innovation, creative sector, digital transformation.

Kirish

San'at va madaniyat jamiyatning ma'naviy asosini tashkil etuvchi muhim sohalardan biri bo'lib, u ijtimoiy taraqqiyot, inson tafakkurining yuksalishi, milliy o'zlikni anglash jarayonlarida muhim o'rin tutadi. Hozirgi kunda ushbu sohada boshqaruv tizimini zamon talablariga mos ravishda takomillashtirish, innovatsion yondashuvlarni joriy etish zaruriyati tobora ortib bormoqda. Globalizatsiya, raqamli texnologiyalar taraqqiyoti, madaniy merosni saqlash va uni yangi avlodga yetkazish kabi omillar san'at va madaniyat sohasida boshqaruv faoliyatining zamonaviy yo'nalishlarini shakllantirishda asosiy o'rin egallamoqda.

Birinchi navbatda, raqamli transformatsiya san'at va madaniyat sohasida boshqaruvning asosiy yo'nalishlaridan biri sifatida ko'zga tashlanadi. Raqamli muzeylar, virtual ko'rgazmalar, onlayn konsertlar va platformalar orqali madaniy mahsulotlarni ommaga yetkazish imkoniyati kengaymoqda. Bu esa madaniyatni demokratlashtirish, ya'ni uni barcha qatlamlarga teng yetkazish imkonini beradi. Shuningdek, raqamli texnologiyalar madaniy obyektlarni arxivlash, saqlash va ularni raqamli shaklda tiklash imkonini beradi. Ikkinchi muhim yo'nalish — ijodiy industriyalarni rivojlantirish hisoblanadi. San'at va madaniyat endilikda nafaqat ma'naviy, balki iqtisodiy resursga aylangan. Turizm, dizayn, moda, kino sanoati, musiqa va reklama sohalari orqali madaniyat iqtisodiyot bilan chambarchas bog'liq bo'lmoqda. Davlatlar ushbu yo'nalishda ijodiy sektorlarni qo'llab-quvvatlash, startaplar va kichik bizneslar uchun grantlar ajratish, soliq imtiyozlari joriy etish orqali madaniy rivojlanishni rag'batlantirmoqda.

Uchinchi zamonaviy yo'nalish — madaniy merosni boshqarishning barqaror tizimini shakllantirishdir. Jahon tajribasida moddiy va nomoddiy madaniy merosni saqlash, restavratsiya qilish, ularni UNESCO ro'yxatiga kiritish orqali himoya qilish faoliyatlari muhim o'rin tutadi. Bunda boshqaruvning zamonaviy texnologiyalar, GIS tizimlari va sun'iy intellektdan foydalanish orqali samaradorligi oshirilmoqda. To'rtinchi yo'nalish — xususiy sektor va davlat sherikchiligi asosida madaniyatni rivojlantirishdan iborat. San'at va madaniyat ob'ektlarini boshqarishda xususiy investitsiyalarni jalb etish, hamkorlik asosida loyiha va dasturlarni amalga oshirish madaniyatning iqtisodiy barqarorligini ta'minlashda muhim ahamiyat kasb etadi. Bu, ayniqsa, teatrlar, galereyalar, tarixiy obidalarni saqlashda ijobiy natijalar bermoqda.

Beshinchi yo'nalish — kadrlar salohiyatini oshirish va madaniyat menejmentini rivojlantirishga qaratilgan. Ularni tayyorlash va qayta tayyorlash, xalqaro tajribalarni o'rganish va amaliyotga tatbiq etish dolzarb masalaga aylanmoqda. Madaniyatni boshqarishda zamonaviy liderlik, innovatsion yondashuvlar va strategik rejalashtirish

katta ahamiyatga ega. Shunday qilib, san'at va madaniyat sohasidagi boshqaruv faoliyati bugun an'anaviy yondashuvlardan uzoqlashib, zamonaviy texnologiyalar, iqtisodiy vositalar, ijtimoiy sheriklik va raqamli platformalar bilan uyg'unlashmoqda. Bu esa milliy madaniyatni asrab-avaylash, uni xalqaro maydonga olib chiqish, yosh avlodni ma'naviy boyitish va ijodkorlik salohiyatini rivojlantirishda muhim bosqich bo'lib xizmat qilmoqda.

Xulosa

San'at va madaniyat sohasida boshqaruv faoliyatini zamonaviy yo'nalishlar asosida tashkil etish bugungi globallashuv, raqamli transformatsiya va ijtimoiy o'zgarishlar sharoitida nihoyatda dolzarb bo'lib bormoqda. An'anaviy boshqaruv modellari endi zamon talablari va jamiyat ehtiyojlariga to'liq javob bera olmaydi. Shu boisdan, boshqaruv tizimlarida innovatsion texnologiyalar, kreativ yondashuvlar, strategik rejalashtirish, xususiy sektor ishtiroki va xalqaro hamkorliklar asosida yangilanish zarurati tug'ildi. Raqamli texnologiyalarning keng joriy etilishi san'at va madaniyatni boshqarishda yangi davrni boshlab berdi. Virtual ko'rgazmalar, onlayn madaniy tadbirlar, raqamli arxivlash ishlari nafaqat madaniyatni keng ommaga taqdim etmoqda, balki ularni saqlash, asrash va qayta tiklashda ham katta imkoniyatlar yaratmoqda. Bu esa madaniy merosni jahon miqyosida tanitish va uni global madaniy muhitga olib chiqishda muhim omil sifatida xizmat qilmoqda.

Madaniyat sohasida boshqaruvning muhim jihatlaridan yana biri – iqtisodiy samaradorlikni ta'minlashga xizmat qiluvchi ijodiy industriyalarning shakllanishidir. Kino, teatr, moda, dizayn, multimedia mahsulotlari kabi yo'nalishlar bugun madaniyat bilan birga iqtisodiyotning ham faol bo'g'iniga aylangan. Ularning samarali boshqarilishi yangi ish o'rinlari yaratish, yoshlar ijodkorligini rivojlantirish, milliy brendni shakllantirishga xizmat qilmoqda. Bu boradagi zamonaviy yondashuvlar – GIS texnologiyalari, sun'iy intellekt asosida monitoring qilish, raqamli rekonstruksiya kabi metodlar boshqaruv samaradorligini yanada oshirmoqda.

Madaniy merosni saqlash – bu nafaqat tarixiy burch, balki kelajak avlod oldidagi mas'uliyatdir. Xulosa qilib aytganda, san'at va madaniyat sohasida boshqaruv faoliyatining zamonaviy yo'nalishlari – bu murakkab, ammo zaruriy jarayon bo'lib, u davlat siyosati, iqtisodiyot, texnologiyalar va ijtimoiy munosabatlar bilan chambarchas bog'liq. Bu yo'nalishlarda olib borilayotgan islohotlar va yangilanishlar nafaqat milliy madaniyatning rivojlanishiga, balki uni xalqaro maydonda tanitish, ijtimoiy barqarorlikni ta'minlash va ma'naviy yuksalishga zamin yaratadi. Shu bois, ushbu sohada boshqaruvni to'g'ri yo'lga qo'yish – bu strategik muhim vazifa bo'lib qolmoqda.

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IKKINCHI TARTIBLI EGRI CHIZIQLARNI MODELLASHTIRISH

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ANNOTATSIYA

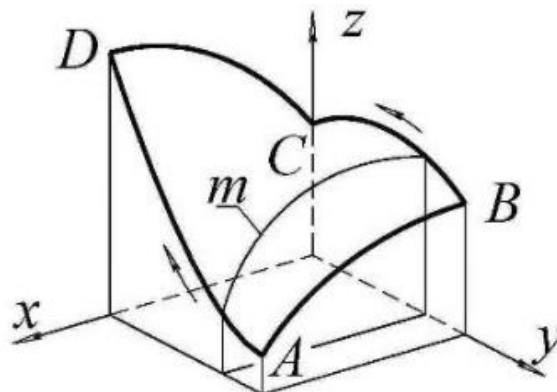
Mazkur maqolada hozirgi kunda sirlarni loyihalash amaliyotida, asosan, hisoblash geometriyasining mashhur usullariga asoslangan, geometriya axborotini shakllantirishning diskret raqamli usullarini amalga oshiruvchi zamonaviy CAD texnologiyasi keltirilgan. Xususan, ikkinchi tartibli egri chiziqlardan asosiy formativ elementlar sifatida foydalanishga qaratilgan.

KALIT SOZLAR

Egri chiziq, ikkinchi tartibli egri chiziq, modellashtirish, dekart koordinatalar tizimi, kinematik, geometrik modellashtirish.

Rejada to'g'ri to'rtburchak shaklida bo'lgan fazoviy yopiq kontur ABCD berilgan, uning frontal bo'g'inlari AB va CD-ikkinchi tartibli egri chiziqlarning yoylari, yon bo'g'inlari AD va BC esa-ixtiyoriy silliq egri chiziqlar (1-rasm). Berilgan konturga tayanadigan uzluksiz silliq sirt qurish talab etiladi. Masalani yechishda kinematik usul qo'llaniladi.

m egri chizig'i, u hosil qiluvchi deb ataladi, yo'naltiruvchilar AD va BC bo'ylab sirg'anadi va o'z shaklini AB yoyidan CD yoyigacha silliq o'zgartiradi shart qilib qo'yamiz.



1-rasm

Hosil qiluvchi m egri chizig'i ikkinchi tartibli egri chiziqning bir bo'lagi bo'lsin. Tekislikdagi ikkinchi tartibli egri chiziq beshta erkinlik darajasiga ega, shuning uchun hosil qiluvchining shaklini boshqarish uchun, ba'zi mustaqil parametr bilan aniqlanuvchi beshta shartni ko'rsatish kerak bo'ladi.

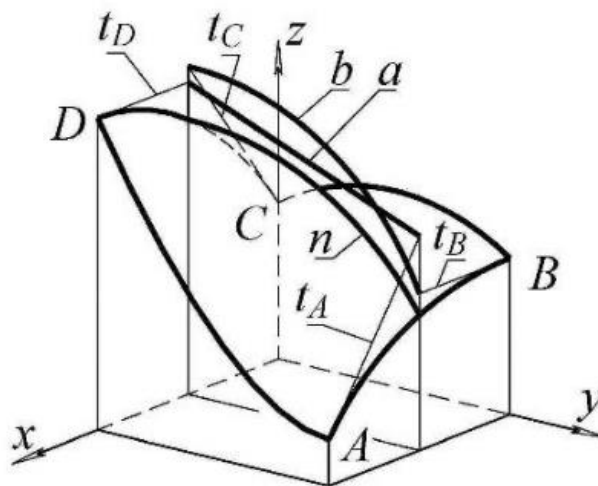
Modellashayotgan sirt dekart koordinatalar tizimidagi x va y o'qlari bo'yicha yo'naltirilgan to'g'ri to'rtburchak asosga ega bo'lib, bu bizga mustaqil parametr sifatida y koordinatasini qabul qilish imkonini beradi. Ushbu y parametrining har bir qiymatiga tayanch konturining yon bo'g'inlari bo'ylab yotuvchi ikkita nuqta mos keladi, va hosil qiluvchi m shu nuqtalardan o'tishi kerak. Bu shart hosil qiluvchining erkinlik darajasini ikki birlikka kamaytiradi. Ushbu nuqtalarda hosil qiluvchiga tangensial (tegishli) yo'nalishlarni belgilash orqali yana ikki erkinlik darajasini belgilaymiz.

Berilgan y parametrining qiymatida hosil qiluvchi m ning shakli va joylashuvini to'liq aniqlash uchun, konstruksiyalanayotgan sirtga qo'yilgan texnik talablar asosida qo'shimcha yo'naltiruvchi ko'rsatish kerak bo'ladi.

Masalan, sirt qavariq bo'lgan n hosil qiluvchi orqali o'tishi talab etilsin, bu hosil qiluvchining tekisligi kontur yon bo'g'inlari tekisliklariga parallel bo'lsin (2-rasm).

Keling, xz tekisligiga parallel bo'lgan va AD , a va BC , b yo'naltiruvchilariga ega bo'lgan ikki yordamchi chiziqli sirt η va ψ ni ko'rsatamiz.

Agar a -to'g'ri chiziq, b esa-silliqli egri chiziq bo'lsa, u holda η (AD , a) chiziqli sirt-konoid, ψ (BC , b) esa-silindroid bo'ladi. Modellashayotgan sirt AD bo'g'inidagi nuqtalarda konoid η ga va BC bo'g'inidagi nuqtalarda tsilindroid ψ ga tegib turishini talab qilamiz. Bu talab hosil qiluvchi m sirtining tayanch konturdagi barcha nuqtalarida aniq tangensial yo'nalishni ko'rsatish imkonini beradi.



2-rasm

Berilgan konturda yo'naltiruvchi a chizig'i frontal qismlar AB va CD tekisliklari bilan kesishgan joyda, tugun nuqtalaridagi (A va D) tegishli tangensial chiziqlarga mos kelishi kerak. Xuddi shunday, yo'naltiruvchi b chizig'i B va C tugunlarida mos tangensial chiziqlarga mos bo'lishi zarur. Bu sirtning silliq va uzluksiz bo'lishi uchun shart.

Yo'naltiruvchi a va b egri chiziqlarning shakli va joylashuvini o'zgartirish orqali sirt shaklini boshqarish mumkin.

Aslida, sirt shaklini aniqlash uchun uchta asosiy element yetarli bo'ladi:

- Qo'shimcha yo'naltiruvchi n
- Va unga tegib turuvchi ikkita chiziqli sirt (η va ψ).

Parametr y ning har bir qiymatiga quyidagilar mos keladi:

- Konturdagi ikki nuqta (yon tomonlardan),
- Ularning tangensial chiziqlari
- Yo'naltiruvchi n ustidagi bir nuqta.

Ushbu 5 ta element orqali faqat bitta ikkinchi tartibli egri chiziq quriladi-bu hosil qiluvchi m chizig'i bo'ladi. y parametrini o'zgartirib, biz uzluksiz o'zgarib boruvchi egri chiziqlar majmuasini hosil qilamiz va natijada silliq sirt shakllanadi.

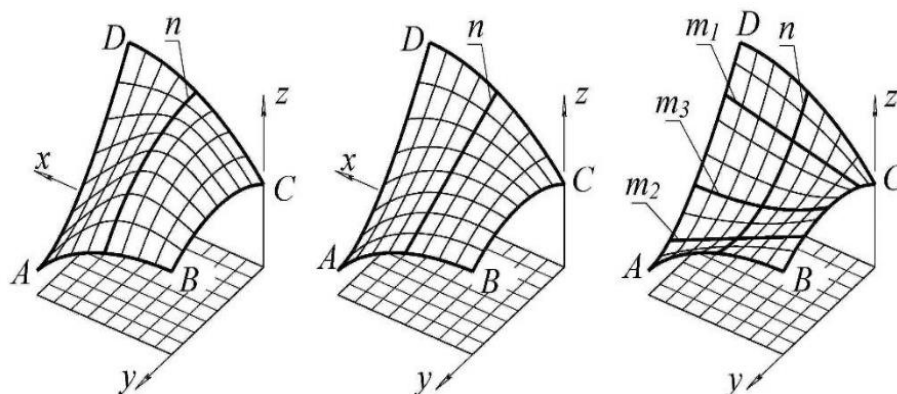
Masalan:

- Agar $y = y_A$ bo'lsa -AB qismi hosil qilinadi,
- Agar $y = 0$ bo'lsa -CD qismi hosil qilinadi.

Shunday qilib, hosil qiluvchi m AB yoyidan CD yoyigacha silliq o'zgaradi va har doim ikkinchi tartibli egri chiziq shaklida qoladi.

Uch xil sirt shakllanishi mumkin:

- **Qavariq** (3-a rasm)
- **To'g'ri chiziqli** (3-b rasm)
- **Ichkari egilgan (konkav)** (3-v rasm) qo'shimcha yo'naltiruvchi n bilan.



3-rasm

Ko'rib chiqilgan algoritmg muvofiq, har qanday holatda ham uzluksiz va silliq sirt hosil bo'ladi. Bu sirt AB yoyidan CD yoyigacha shaklini o'zgartirib boradigan, bir parametr bo'yicha o'zgaruvchi ikkinchi tartibli egri chiziqlar majmuasidan tashkil topgan. Vogn (ichkari egilgan) yo'naltiruvchi bilan qurilgan sirt esa ikkita maxsus chiziqni o'z ichiga oladi, ular m_1 va m_2 , va bu chiziqlar oddiy to'g'ri chiziqlarga aylanadi.

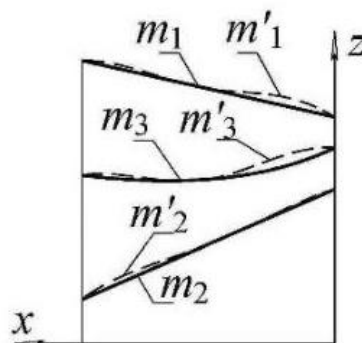
Hosil qilinayotgan sirt karkasida to'g'ri chiziqli elementlarning bo'lishi texnologik afzallik hisoblanadi.

Berilgan konturga tayanadigan sirtni qurish masalasi ikki o'lchovli interpolatsiya (loft) usuli yordamida ham yechiladi, bu usul grafikga yo'naltirilgan SAPR (kompyuter yordamida loyihalash tizimlari)da mavjud.

Keling, geometrik modellash natijalarini taqqoslaymiz: birinchisi-biz ko'rib chiqqan algoritm bo'yicha, ikkinchisi-loft usuli orqali.

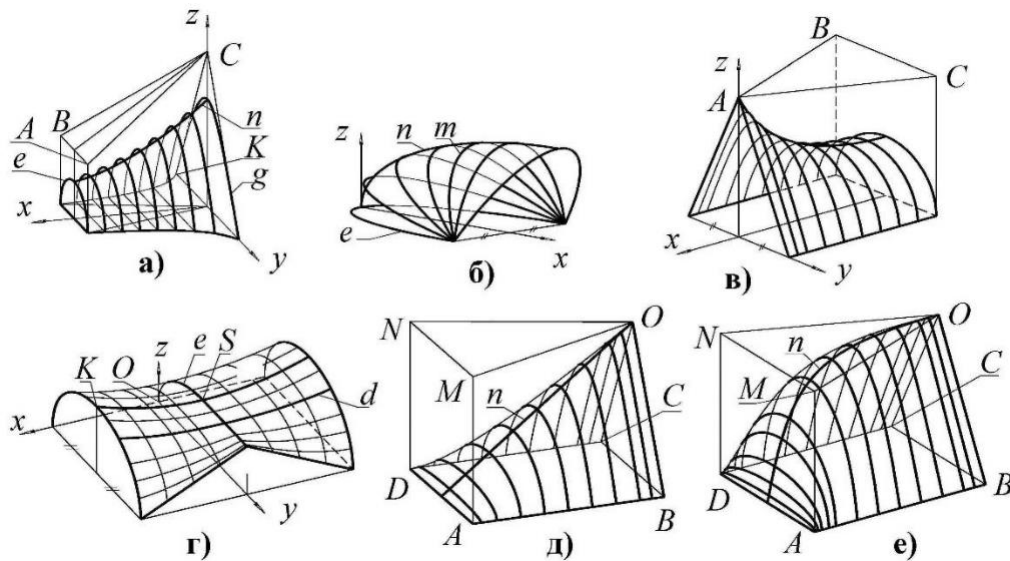
Taqqoslash uchun vogn yo'naltiruvchi bilan qurilgan sirtni tanlaymiz. Sirt profillarini m_1 , m_2 va m_3 hosil qiluvchilar orqali kesib, taqqoslaymiz (4-rasm).

Bizning algoritmg ko'ra, sirt to'g'ri chiziqli hosil qiluvchilar m_1 va m_2 ni o'z ichiga oladi. Biroq loft usuli orqali hisoblab qurilgan sirt esa, m_1' va m_2' shaklida sezilarli tebranishlarga ega bo'ladi. Bu esa geometrik modelning konstruksion kamchiligi sifatida qaraladi.



4-rasm

Kinematik usulda qurilgan sirtlarning boshqa misollari ham mavjud. Ushbu algoritm yordamida turli xil arxitektura qobiq modellarini hosil qilish mumkin, ular ixtiyoriy tekis yoki fazoviy konturlarga tayanishi mumkin (5-rasm). Masalan, sirt tekis konturga tayanib, elliptik e va giperbolik g segmentlar orqali o'tadi va u yerda suv ajratuvchi chiziq n mavjud bo'ladi.



5-rasm

Qobiq shakli, yo‘naltiruvchi chiziqlar BC va AC ning holati o‘zgarganda, o‘zgaradi (5-rasm, a). Ellips yoyiga (e) tayanadigan oval sirt esa, ikkinchi tartibli egri chiziq m orqali shakllantirilgan bo‘lib, u yo‘naltiruvchi chiziq n bo‘ylab sirpanadi (5-rasm, b).

To‘g‘ri to‘rtburchak konturga tayanadigan sirt esa, hosil qiluvchi chiziqning harakati orqali hosil qilinadi. Bu chiziq shaklini A nuqtasidan boshlanuvchi uchburchakdan tortib, doira yoyigacha o‘zgartirib boradi (5-rasm, v). Bu sirt bilan tutashgan boshqa sirtlar esa oddiy ikki qiyshiq tekislikka aylanadi va ular yz tekisligiga parallel bo‘ladi hamda AB va AC to‘g‘ri chiziqlarga tayanadi.

Agar qobiqni quyidagi fazoviy konturga moslab tortish talab qilinsa- bu kontur doiradan, uchburchakdan, to‘g‘ri chiziq bo‘lagidan va yo‘naltiruvchi chiziqlar d va e dan tashkil topgan bo‘lsa (5-rasm, g)-unda sirtning bu qismi ikkinchi tartibli egri chiziq yordamida shakllanadi. Bu egri chiziq shaklini doira yoyidan boshlab, oddiy to‘g‘ri chiziq holatigacha o‘zgartirib boradi.

5-rasmning d va e qismlarida esa, to‘rtburchak shakldagi tayanchga tayanib qurilgan qobiq sirtlari ko‘rsatilgan. Ushbu barcha sirtlarning karkaslari ikkinchi tartibli egri chiziq yoylaridan tashkil topgan.

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PROSPECTS FOR APPLICATION OF NEW INFORMATION TECHNOLOGIES IN TEACHING PROBABILITY THEORY AND MATHEMATICAL STATISTICS

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Abstract. To increase the effectiveness of training in probability theory and mathematical statistics, the possibilities of using new information technologies are considered.

Keywords. Improving the quality of knowledge, information technologies, multimedia, probability theory and mathematical statistics.

Improving the quality of students' knowledge and stimulating their interest in learning are important tasks for improving the learning process, and in connection with the standardization of education, they become especially relevant. Their solution is currently seen in enriching the content, methods and organizational forms of education. In the process of training, more attention should be paid to the formation of cognitive knowledge among students, rational methods of educational and cognitive activity: independently work with a book, conduct observations, conduct experiments, systematize and generalize their knowledge.

It is necessary to strengthen attention to experimental, practical and laboratory work, performing which students acquire skills in handling technology. It is necessary to take seriously the solution of the problem of interdisciplinary ties, revising them from the standpoint of national standards of higher education, coordinating curricula so that students have time to master the necessary apparatus by the beginning of the study of the relevant material of another course.

Success in education is largely determined by the peculiarities of the transition to an information society. The rapidly growing volumes of educational information have come into conflict with the very possibilities of assimilating it. It is not the volumes of knowledge that become very important in the training of specialists, which

are largely transferred beyond the brain to various libraries, databases, computer networks, but the methods of obtaining knowledge and the possibility of their operational processing.

The effectiveness of training largely depends on the level of professional competence of the teacher. To become an authority for students, he must have deep basic scientific knowledge and skills, modern methods and computer technologies, general erudition, pedagogical skills, a sustained style of communication, the ability to awaken the hidden capabilities of a person, faith in his students.

A modern teacher should look for and find technologies that are productive for a person. Along with justified methods, such as dialogue, search, research, such as simulation modeling, collective learning methods, micro-learning and others were born.

The requirements of society for specialists cause the need for a fundamentally qualitative reorientation of the system of their training, both substantive and organizational in nature. In this regard, a whole direction is actively developing as informatization of the vocational education system. Information approach, new information technologies are widely used in almost all areas of human activity.

The use of new information technologies in training is currently one of the priority areas of pedagogical science. Information technologies in the broad sense of the word include not only traditionally allocated quantitative systems, but also distance learning, telecommunications systems, audiovisual technologies.

Thus, in the context of the observed decrease in the cognitive activity of students, computer technology can become an important factor in the implementation of the necessary training in modern conditions, based on solving the problems posed, achieving pleasure from the process and the result of their activities.

There is every reason to believe that further informatization of education will lead not only to the improvement of ordinary forms of education, but also to the emergence of new, subject-specific methods. Great hopes are associated with distance learning, the functioning of which involves spatial temporal flexibility, individualization of training, orientation to the needs of students through the use of telecommunication technologies and multimedia tools.

The peculiarity of teaching probability theory and mathematical statistics is that this direction of mathematics is not a direct continuation of high school

mathematics. The concepts of mathematical analysis, higher algebra, analytical geometry are found in the sections of high school mathematics.

But such elementary concepts of probability theory and mathematical statistics as probability, chance, event and others are new for higher school students. Therefore, it is advisable to organize the teaching of probability theory and mathematical statistics by declaration, i.e. first, new concepts and terminology are introduced, and then students' knowledge in this direction is consolidated. As knowledge accumulates, students' thinking, creativity and independent work become more active.

Today, multimedia tools are also becoming necessary for teaching probability theory and mathematical statistics. The use of multimedia tools particularly facilitates the explanation of materials using complex formulas, tables, graphs, etc.

Methods of teaching probability theory and mathematical statistics using modern computer technologies and multimedia tools show that the degree of perception, memorization and processing of information by students is high. They especially strengthen the creative capabilities of students to operate with objects in visual and graphic interaction, using the available knowledge about random quantities, functions, processes.

As an illustration of the above, it can be emphasized that in presentation slides created through Microsoft PowerPoint, various sections of text, graphs are highlighted with different colors and styles, appear on the screen using various visual effects of animation with sound.

Given the above facts, we can conclude that the use of multimedia tools in teaching probability theory and mathematical statistics is becoming more and more relevant. Here, undoubtedly, a decisive role is given to a personal computer, which is a source of presentation of educational material, conditions for experimentation, serves as a library, a center for obtaining reference information and a communication center.

The main task of higher educational institutions is to prepare a new generation for life in modern information conditions, for the perception of various information, to teach a person to master the way of communication using multimedia means and modern information technologies.

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FERULA TADSHIKORUM PIMENOV O'SIMLIGINING URUG' BIOLOGIYASI

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ANNOTATSIYA

Ushbu maqolada *Ferula tadshikorum* Pimenov turiga mansub o'simlik urug'larining biologik xususiyatlari, ularning unib chiqish omillari, ekologik talablari hamda tarqalish mexanizmlari tahlil qilingan. O'simlikning urug' biologiyasini chuqur o'rganish, ularni muhofaza qilish va ko'paytirish strategiyalarini ishlab chiqishda muhim ahamiyatga ega.

АННОТАЦИЯ

В данной статье рассматриваются биологические особенности семян растения *Ferula tadshikorum* Pimenov, включая их прорастание, экологические требования и механизмы распространения. Изучение семенной биологии данного вида имеет важное значение для его охраны, воспроизводства и рационального использования. Особое внимание уделено физиологической покоей фазе семян, факторам, влияющим на всхожесть, а также методам преодоления этого состояния в целях повышения семенного размножения.

ABSTRACT

This article explores the seed biology of *Ferula tadshikorum* Pimenov, focusing on germination characteristics, ecological requirements, and dispersal mechanisms. Understanding the seed biology of this species is essential for its conservation, propagation, and sustainable use. Special attention is given to the physiological dormancy of the seeds, environmental factors affecting germination, and strategies to overcome dormancy in order to enhance seed-based reproduction.

Kalit so'zlar: *Ferula tadshikorum*, urug' biologiyasi, unuvchanlik, ekologik omillar, endemik o'simlik, tabiiy tiklanish.

Ключевые слова: *Ferula tadshikorum*, биология семян, всхожесть, экологические факторы, эндемичное растение, естественное восстановление.

Keywords: *Ferula tadshikorum*, seed biology, germination, ecological factors, endemic plant, natural regeneration.

O'zbekiston florasi noyob va endemik o'simliklarga boy. Bu o'simliklar orasida *Ferula* turkumiga mansub turlar alohida o'rinni egallaydi. Ayniqsa, *Ferula*

tadshikorum Pimenov — dorivor xususiyatlarga ega, biokimyoviy tarkibi boy, ekologik jihatdan muhim o‘simliklardan biri hisoblanadi. Tabiiy sharoitda ushbu turning populyatsiyasi sekin tiklanishi, ko‘payishning urug‘ orqali murakkabligi, bu o‘simlikning urug‘ biologiyasini chuqur o‘rganishni taqozo etadi. Urug‘ biologiyasini o‘rganish orqali sun‘iy ko‘paytirish, in vitro usullar, muhofaza qilish strategiyalarini ishlab chiqish mumkin.

Ferula tadshikorum Pimenov – Seldereylar (Apiaceae) oilasiga mansub ko‘p yillik o‘simlik bo‘lib, asosan O‘rta Osiyoning tog‘li mintaqalarida, ayniqsa, Tojikiston va O‘zbekistonning janubiy va janubi-g‘arbiy qismidagi toshloq yonbag‘irlarda uchraydi. O‘simlik balandligi 1,5–2,5 metrgacha yetishi mumkin. Barglari murakkab, chuqur parrakli; gullari soyabon shaklida joylashgan bo‘lib, may–iyun oylarida gullaydi. Mevalari yassi, qanotsimon va ikki bo‘lakli samara (merikarpiy) shaklida.

Ushbu turning ekologik moslashuvi kuchli bo‘lishiga qaramay, u faqat cheklangan arealda tarqalganligi sababli himoyaga muhtoj. O‘sadigan joylarining iqlimi quruq, tuproqlari esa asosan toshloq va kam unumdor bo‘ladi.

Urug‘larning morfologiyasi va strukturasi

Ferula tadshikorum urug‘lari ikki qismdan iborat bo‘lgan yassi, yelkasimon qanotli merikarplardan iborat. Ular yengil bo‘lib, shamol yordamida qisqa masofalarda tarqalishga moslashgan. Urug‘ yuzasi silliq, rangsiz yoki och jigarrang bo‘lib, qobig‘i zich va suvni qiyin o‘tkazadi. Ichki tuzilmasi embrion, endosperm va urug‘ po‘stidan tashkil topgan.

Murakkab urug‘ tuzilmasi va qalin qobiq urug‘ning uzoq muddatli dormansiyasini (biologik uyqu holati) ta‘minlaydi. Bu esa, urug‘larning tabiiy sharoitda uzoq vaqt davomida unmay yotishiga olib keladi.

Urug‘ biologiyasi va unuvchanlik omillari

Ferula urug‘lari fiziologik dormansiyaga ega. Bu degani, urug‘lar to‘liq pishgan va tashqi jihatdan sog‘lom ko‘rinsa ham, ularni darhol unib chiqishi kuzatilmaydi. Bu holatni bartaraf etish uchun urug‘lar tabiiy (qishloq sharoitida) yoki sun‘iy (laboratoriya sharoitida) stratifikatsiyadan o‘tishi kerak.

Unishga ta‘sir qiluvchi omillar:

- **Harorat:** Optimal unish harorati +5°C dan +15°C gacha. Yuqori harorat unishga salbiy ta‘sir qiladi.
- **Namlik:** O‘rtacha namlikdagi tuproqda yuqori unuvchanlik kuzatiladi. Quruq sharoitda urug‘ po‘stlog‘i shishmaydi.
- **Chuqurlik:** Eng yaxshi natija 1–2 sm chuqurlikda ekilganda kuzatiladi.

- **Tuproq turi:** Quyi unumdor, lekin nam saqlovchi gilli va qumloq tuproqlar afzal.

- **Yorug'lik:** Urug'lar yarim soyali sharoitda ham unib chiqa oladi, ammo to'liq soyada unish sekinlashadi.

Tabiiy sharoitda urug'larning unish muddati 20–40 kunni tashkil qiladi.

Urug'larning tarqalishi va tabiiy tiklanishi

Ferula urug'lari shamol yordamida tarqaladi. Urug'lar yengil va qanotsimon tuzilmaga ega bo'lgani sababli ularning maksimal tarqalish masofasi 5–10 metr atrofida bo'ladi. Ko'pincha, o'simlikning ildiz atrofida ko'plab nihollar paydo bo'ladi. Bu esa populyatsiyaning joyida tiklanishini ko'rsatadi.

Ammo urug'larning dormansiyasi kuchli bo'lganligi sababli tabiiy tiklanish sur'ati juda sekin. Ba'zan, tabiiy sharoitda 100 urug'dan atigi 5–10 tasi unib chiqadi. Bu esa populyatsiyani yo'qolish xavfi ostiga qo'yadi.

Sun'iy ko'paytirish va muhofaza strategiyalari

Ferula urug'larini sun'iy ko'paytirish orqali saqlab qolish va kengaytirish mumkin. Bunda quyidagi usullar qo'llaniladi:

- **Sun'iy stratifikatsiya:** Urug'larni 4–6 hafta davomida $+2...+5^{\circ}\text{C}$ haroratda nam qum ichida saqlash.

- **Tuproq tayyorlash:** Urug'lar uchun qumloq-gilli aralashmasi tavsiya etiladi.

- **Vegetativ ko'paytirish:** Ildiz bo'laklari yordamida ham ko'paytirish mumkin, bu usul genetik bir xillikni saqlaydi.

- **In vitro usuli:** Steril laboratoriya sharoitida ko'paytirish o'simliklarni ommaviy ko'paytirishda samarali.

Muhofaza qilish nuqtai nazaridan, Ferula tadshikorum uchun quyidagi chora-tadbirlar tavsiya qilinadi:

- Populyatsiyalar mavjud hududlarni qo'riqlash zonasi sifatida belgilash.
- Urug' banklarida genofondni saqlab qolish.
- Ilmiy tadqiqotlar asosida agrotexnikaviy tajribalarni kengaytirish.

Ferula tadshikorum o'simligi O'zbekiston va qo'shni hududlar uchun noyob va qimmatli biologik resurs hisoblanadi. Urug' biologiyasining murakkabligi uning sun'iy ko'payishini cheklasa-da, chuqur ilmiy yondashuv va agronomik tajriba asosida bu to'siqlarni bartaraf etish mumkin. Bu o'simlikni saqlash, ko'paytirish va dorivor maqsadlarda foydalanish uchun urug' biologiyasi bo'yicha ilmiy asoslangan yondashuv zarurdir.

Urug'larning unuvchanligi va tuproq sharoitlari

Ferula tadshikorum urug'larining unuvchanligi tuproq tarkibi va namlik darajasiga bevosita bog'liq. Tadqiqotlar shuni ko'rsatadiki:

- **Kaliyga boy tuproqlarda** urug'larning unuvchanligi **62–80%** gacha yetadi.
- **Kulrang tuproqlarda** bu ko'rsatkich **50–60%** atrofida.
- **Qumli tuproqlarda** esa eng past — **26–32%** oralig'ida bo'ladi.

Bu natijalar shuni ko'rsatadiki, kaliyga boy tuproqlarda Ferula urug'lari yaxshi unib chiqadi. Shuningdek, urug'lar **0,5–1,0 sm** chuqurlikda ekilganda optimal natijalar kuzatilgan.

Vegetatsiya davri va o'sish dinamikasi

Ferula tadshikorum o'simligining vegetatsiya davri tuproq sharoitlariga qarab farqlanadi:

- **Kaliyga boy tuproqlarda:** Barglar **70 kunda** shakllanib, **150 kungacha** yashaydi.
- **Kulrang tuproqlarda:** Barglar **80 kunda** shakllanib, **130 kungacha** yashaydi.
- **Qumli tuproqlarda:** Barglar **60 kunda** shakllanib, **100 kungacha** yashaydi.

Bu ma'lumotlar shuni ko'rsatadiki, kaliyga boy tuproqlarda o'simlikning vegetatsiya davri uzunroq bo'ladi.

Sun'iy ko'paytirish va muhofaza strategiyalari

Ferula tadshikorum o'simligini sun'iy ko'paytirish va muhofaza qilish uchun quyidagi choralar tavsiya etiladi:

- **Tuproqni tayyorlash:** Kaliyga boy tuproqlarda urug'larni ekish.
- **Namlikni ta'minlash:** Urug'larning unuvchanligini oshirish uchun yetarli namlikni ta'minlash.
- **Stratifikatsiya:** Urug'larni ekishdan oldin sovuq sharoitda saqlash orqali dormansiyani bartaraf etish.
- **Vegetativ ko'paytirish:** Ildiz bo'laklari yordamida o'simlikni ko'paytirish.
- **In vitro usuli:** Laboratoriya sharoitida o'simlikni ko'paytirish.

Ferula tadshikorum Pimenov o'simligining urug' biologiyasi murakkab bo'lishiga qaramay, ilmiy asoslangan yondashuvlar orqali uni sun'iy ko'paytirish va muhofaza qilish mumkin. Tuproq sharoitlari, namlik darajasi va urug'larni tayyorlash usullari unuvchanlikka bevosita ta'sir qiladi. Shu sababli, o'simlikni saqlab qolish va ko'paytirishda kompleks yondashuv zarur.

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STYPHYLOCOCCUS AUREUSNING O'SISH SHAROITLARI, TOKSINLIGI VA RIVOJLANISH MUHITLARI.

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ANNOTATSIYA

Ushbu maqolada laboratoriya sharoitida Staphylococcus aureusning koloniyada o'sish sharoitlarini, uning o'sishi uchun zarur ozuqaviy muhitlar va bu ozuqa muhitlarida rivojlanishini o'rganildi va "Kani-Lab" va "Ftizlatriya va Pulmonologiya Markazi" laboratoriyalarida tajriba ishlarini olib bordik.

Ushbu tadqiqot va izlanishlar Staphylococcus aureus 5% li defibrinated qon bilan Columbia agar haqida. Agardagi alohida koloniyalar yumaloq, qavariq va diametri 1-4 mm, o'tkir chegara bilan, qon agar plitalarida Staphylococcus aureus koloniyalari ko'pincha aniq beta-gemoliz zonalari bilan o'ralgan. Ba'zi shtammlar koloniyalarining oltin ko'rinishi bakteriyalar nomining etimologik ildizidir, aureus lotin tilida "oltin" degan ma'noni anglatadi.

Kalit so'zlar: Staphylococcus aureus, MRSA, beta-gemoliz, toksin, patogen, nonmotil, katalaza, oksidaza, o'tkir pnevnomiya.

ABSTRACT

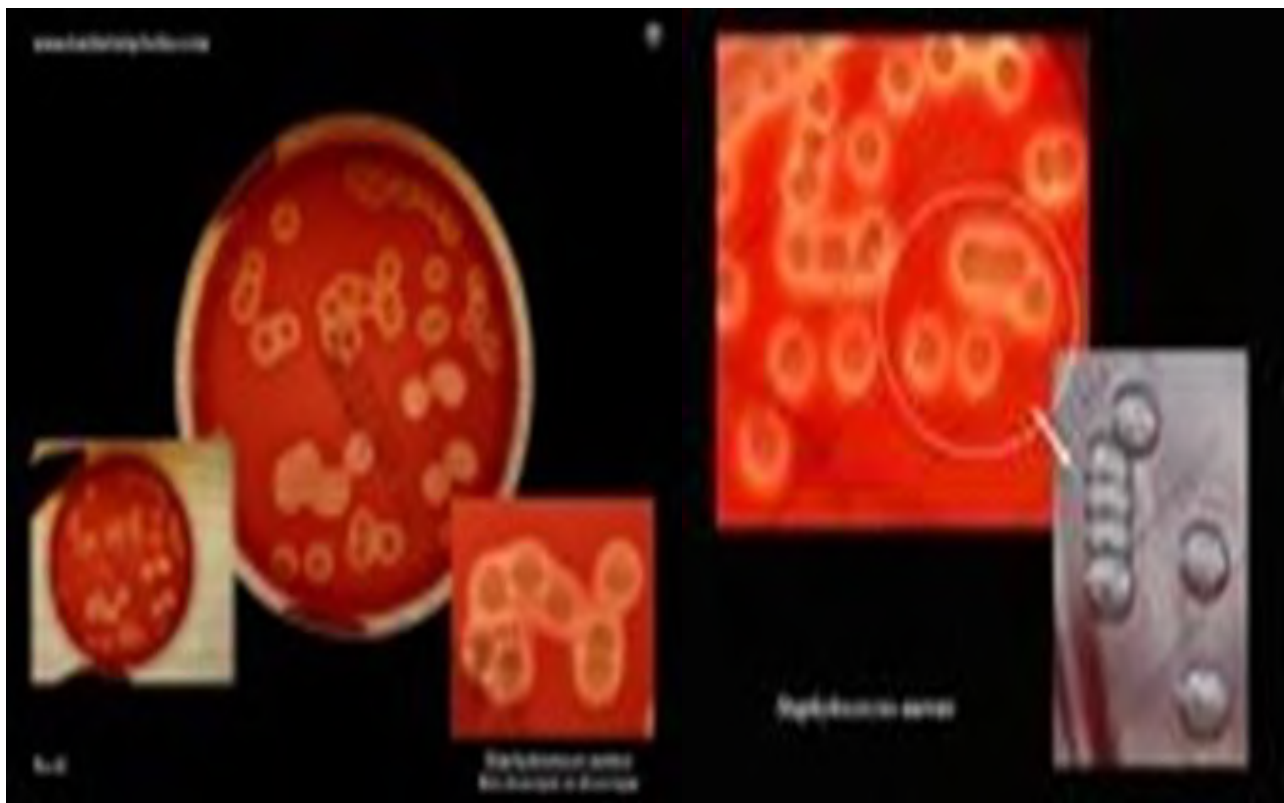
In this article, I set myself the goal of studying the conditions for the growth of Staphylococcus aureus in a colony in laboratory conditions, the necessary nutrient media for its growth and development in these nutrient media, and carried out relevant research work in the laboratory "Kani-Lab".

These studies and research are on Staphylococcus aureus on Columbia agar with 5% defibrinated sheep blood (Bio-rad rat). Individual colonies on agar are round, convex and 1-4 mm in diameter, with sharp boundaries, on blood agar plates Staphylococcus aureus colonies are often surrounded by clear zones of beta-hemolysis.

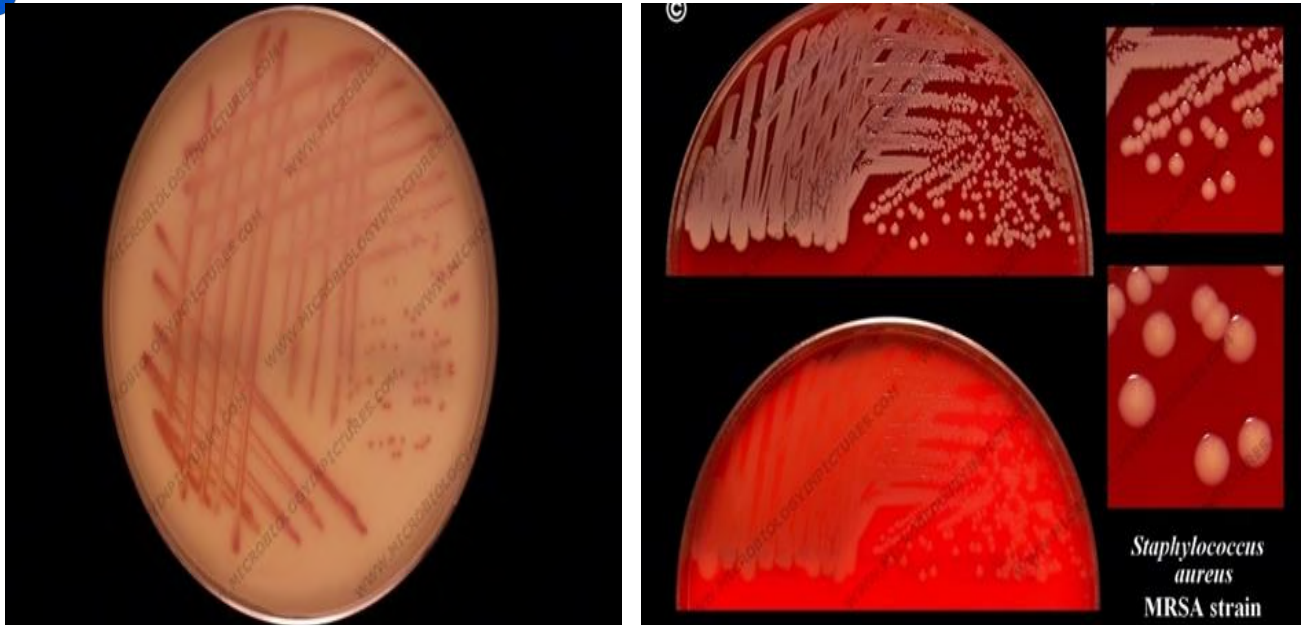
The golden appearance of the colonies of some strains is the etymological root of the name of the bacteria, aureus means "golden" in Latin.

Keywords: Staphylococcus aureus, MRSA, beta-hemolysis, toxin, pathogen, nonmotile, catalase, oxidase, acute pneumonia.

MAQOLANING DOLZARBLIGI. *Staphylococcus aureus* (ya'ni MRSA) ning metitsillinga chidamli shtammlari ko'pincha faqat zaif yoki beta-gemolizga ega emas va ularni ajratish uchun oksatsillin, mannitol va NaCl bilan maxsus yetishtirish vositalaridan foydalaniladi. MRSA ushbu muhitda o'sishi va ishlatilgan pH ko'rsatkichiga qarab ma'lum rangdagi koloniyalarni ishlab chiqarishi mumkin.



1-rasm. *Staphylococcus aureus* beta-gemolizi.



2-rasm. *Staphylococcus aureus* MRSA

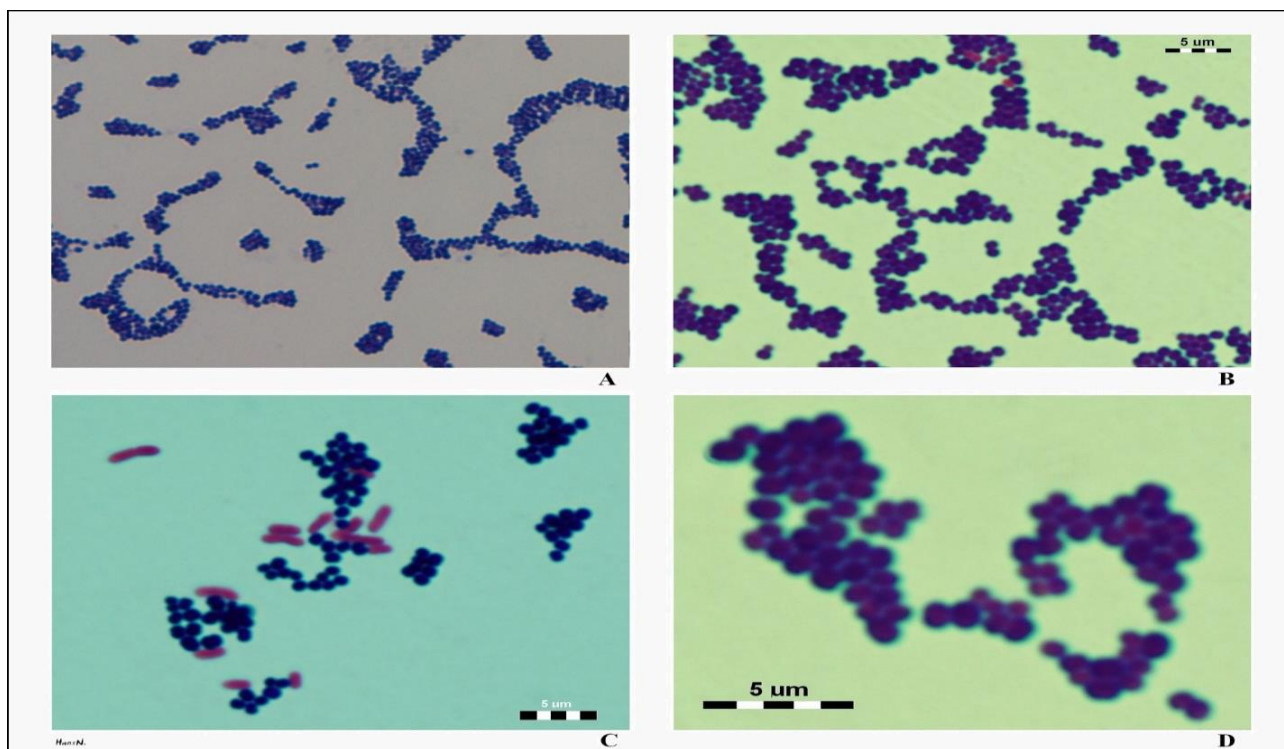
ISHNING MATERIALLARI VA UNI BAJARISH .

Staphylococcus aureus asosiy xususiyatlari:

- Klasterlardagi: Gram-Musbat Kokklar
- Nonmotil
- Spora: Shakllanmagan
- Katalaza: Ijobiy
- Oksidaza: Salbiy
- Fakultativ Anaerob [1]

Staphylococcus aureusni aniqlash:

- koagulaza (erkin koagulaza)ishlab chiqarish
- to'planish omilining mavjudligi (hujayra bilan bog'langan koagulaza)
- natriy xloridga bardoshlik (7,5%)
- mannitol fermentatsiyasi
- gialuronidaza ishlab chiqarish (S. equi bilan ijobiy dekapsulyatsiya sinovi) [2]



3-rasm. *Staphylococcus aureus*ning Gram-usulida bo'yalishi

TAJRIBA NATIJALARI. *Staphylococcus aureus* inson terisida kommensal sifatida paydo bo'lishi mumkin, u burunda tez-tez (aholining taxminan uchdan birida) va tomoqda kamroq uchraydi. Bunday sharoitda *S. aureus*ning paydo bo'lishi har doim ham infektsiyani ko'rsatmaydi va shuning uchun har doim ham davolanishni talab qilmaydi (haqiqatan ham davolash samarasiz bo'lishi va qayta kolonizatsiya bo'lishi mumkin). U itlar, mushuklar va otlar kabi uy hayvonlarida omon qolishi mumkin. *S. aureus* to'siqlar buzilganda boshqa to'qimalarni yuqtirishi mumkin (masalan, teri yoki shilliq qavat). Bu olib keladi furunkullar (furunkullar) va karbunkullar (furunkullar to'plami). Chaqaloqlarda *S. aureus* infektsiyasi og'ir kasallikka olib kelishi mumkin stafilakokk kuygan teri sindromi. Chuqur kirib boradigan *S. aureus* infektsiyalari og'ir bo'lishi mumkin. Protez bo'g'imlari odamni septik artrit va stafilakokk endokardit (yurak klapanlari infektsiyasi) va tez tarqalishi mumkin bo'lgan pnevmoniya uchun alohida xavf tug'diradi. [3]

XULOSA . Biz bakteriologik laboratoriyalarda *Staphylococcus aureus*ning bakteriyasi bilan ishlash uchun avvalo uning kulturasi va mikroflorasini bilishimiz kerakligi haqida ma'lumotlar keltirilgan. O'pkaning o'tkir pnevmoniyasini keltirib chiqaruvchi bu patogen bakteriya bilan ishlashda avvalo, uning tashqi morfologik

belgilarini bilib olish kerak va eng asosiysi, koloniyani o'rganishda juda ehtiyotkor bo'lish lozim. Chunki koloniya tarkibida havo orqali yuquvchi Stafilakokklar bo'lishi mumkin. Ma'lumki, turli muhitdagi patogen koloniyasi ham turlicha bo'ladi va ularni o'rganish usullari ham shunga ko'ra o'zgarib boradi. Qonli agarda, agarning turli muhitlarida, organizm ichida uni qanday aniqlash mumkinligi haqida ma'lumotlar berilgan. Ayniqsa patogen havo mikroflorasi orqali yuqishini hisobga olsak, laboratoriyada bu bakteriya shtammini aniqlash va o'rganish juda ham katta tajriba va ehtiyotkorlikni talab etishini aytib o'tish lozim. Bundan tashqari laboratoriya sharoitida Stafilakokklarni aniqlash, ularning toksikligini tekshirish, antibiotiklarga sezgiriligini aniqlash, turli xil muhitlarda o'suvchanligini aniqlash va gramm usulida bo'yash orqali ularning mavjudligini aniqlash kabi jarayonlarni o'rgandik. Shunday qilib Termiz shahridagi "Kani-Lab" laboratoriyasi va Termiz davlat universitetining Mikrobiologiya o'quv laboratriyasida biz qon va boshqa na'munalar orqali turli xil agarli ozuqa muhitlarida Stafilakokklarni ekish kulturasini va ularning o'sish jarayonlarini kuzatib, tahlil qildik. Kuzatish jarayonida aniqlangan patogen bakteriya shtammlarni qayd etib, kultura xosil qilishdagi holatlari o'rganildi.

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AYOLLARNING OZIQLANISH HOLATI VA UNING GINEKOLOGIK SALOMATLIKKA TA'SIRI

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ANNOTATSIYA

Tadqiqotda ayollar salomatligi, xususan, ginekologik holatga umumiy oziqlanish holatining ta'siri tahlil qilinadi. 18–45 yoshdagi 120 nafar ayol o'rtasida o'tkazilgan so'rovnoma va ilmiy adabiyotlar tahlili natijalariga ko'ra, oziq moddalar yetishmovchiligi, nosog'lom ovqatlanish, semizlik yoki ortiqcha ozg'inlik holatlari hayz ko'rishdagi buzilishlar, polikistik tuxumdon sindromi va tug'maslikka olib kelayotgani aniqlandi. Mualliflar to'g'ri, vitamin va mikroelementlarga boy ratsion orqali gormonal muvozanat va reproduktiv faoliyatni saqlash zarurligini ta'kidlaydi.

Kalit so'zlar: oziqlanish holati, ayollar salomatligi, ginekologik kasalliklar, hayz sikli, tug'maslik, polikistik tuxumdon sindromi, mikroelementlar, to'g'ri ovqatlanish, gormonal muvozanat.

ПИТАНИЕ ЖЕНЩИН И ЕГО ВЛИЯНИЕ НА ГИНЕКОЛОГИЧЕСКОЕ ЗДОРОВЬЕ

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АННОТАЦИЯ

В исследовании анализируется влияние общего состояния питания на здоровье женщин, в частности, на гинекологическое состояние. На основе опроса среди 120 женщин в возрасте от 18 до 45 лет и анализа научной литературы установлено, что дефицит питательных веществ, нездоровое питание, ожирение или чрезмерная худоба способствуют нарушениям менструального цикла, синдрому поликистозных яичников и бесплодию. Авторы подчеркивают

важность сбалансированного рациона, богатого витаминами и микроэлементами, для поддержания гормонального баланса и репродуктивной функции.

Ключевые слова: состояние питания, здоровье женщин, гинекологические заболевания, менструальный цикл, бесплодие, синдром поликистозных яичников, микроэлементы, правильное питание, гормональный баланс.

WOMEN'S NUTRITIONAL STATUS AND ITS IMPACT ON GYNECOLOGICAL HEALTH

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ABSTRACT

This study analyzes the impact of overall nutritional status on women's health, particularly gynecological conditions. Based on a survey of 120 women aged 18 to 45 and a review of scientific literature, it was found that nutrient deficiencies, unhealthy eating habits, obesity, or extreme thinness contribute to menstrual disorders, polycystic ovary syndrome, and infertility. The authors emphasize the importance of a proper diet rich in vitamins and micronutrients to maintain hormonal balance and reproductive function.

Keywords: nutritional status, women's health, gynecological diseases, menstrual cycle, infertility, polycystic ovary syndrome, micronutrients, healthy nutrition, hormonal balance.

KIRISH

Ayollar salomatligi, ayniqsa reproduktiv salomatlik nafaqat tibbiy, balki demografik va ijtimoiy-iqtisodiy barqarorlik nuqtai nazaridan ham muhim hisoblanadi. Jahon sog'liqni saqlash tashkiloti ma'lumotlariga ko'ra, dunyo bo'yicha 15–49 yoshdagi ayollarning 30% ga yaqini turli ginekologik muammolardan aziyat chekmoqda. O'zbekistonda esa har to'rtta reproduktiv yoshdagi ayoldan biri hayz ko'rishdagi buzilishlar yoki tug'maslikka duchor bo'lgani qayd etilgan.

Ilmiy tadqiqotlar mikroelementlar – temir, foliy kislota, D vitamini va omega-3 yog' kislotalarining yetishmasligi gormonal disbalansga va ovulyatsiyaning buzilishiga sabab bo'lishini ko'rsatmoqda. Bundan tashqari, semizlik va ortiqcha



ozgʻinlik kabi BMI (tananing massa indeksi) muvozanatsizliklari ham polikistik tuxumdon sindromi va tugʻmaslik holatlarini kuchaytiradi. Ushbu maqolada ovqatlanish bilan bogʻliq omillar ayollarning ginekologik salomatligiga qanday taʼsir qilishi tadqiq etiladi.

METODLAR

Adabiyot tahlili: PubMed, JSST va boshqa xalqaro manbalar orqali oziqlanish va ginekologiyaga oid ilmiy maqolalar oʻrganildi.

Soʻrovnoma: 120 nafar 18–45 yoshdagi ayol oʻrtasida ovqatlanish odatlari va hayz holati yuzasidan soʻrov oʻtkazildi.

Klinik maʼlumotlar: Ambulator kartalar va gormonal hamda metabolik koʻrsatkichlar tahlil qilindi.

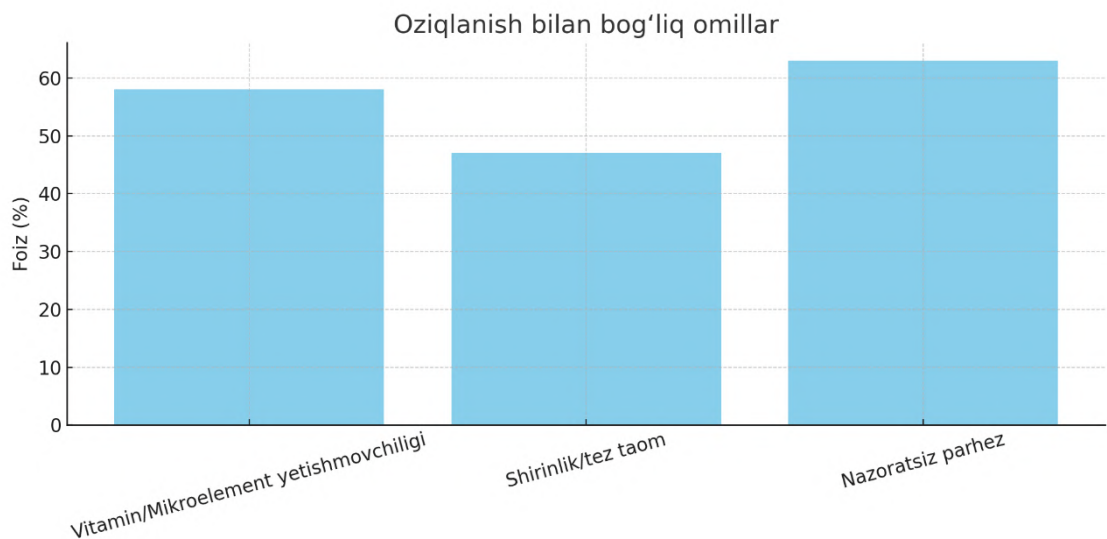
Statistik tahlil: Microsoft Excel dasturida hisob-kitoblar olib borildi, natijalar foizlarda ifodalandi.

NATIJALAR

Tadqiqot natijasiga koʻra quyidagilar oʻrganildi.

1-Jadval. Ayollarning ovqatlanish odatlari va ginekologik holati oʻrtasidagi bogʻliqlik (n=120)

№	Koʻrsatkichlar	Ishtirokchilar soni	Foizi (%)
1	Vitamin va mikroelementlar yetishmovchiligi	70	58%
2	Shirinliklar va tez tayyor taomlarni doimiy isteʼmol qiluvchi	56	47%
3	Nazoratsiz parhezga amal qilganlar	76	63%
4	Hayz koʻrishdagi buzilishlar	41	34%
5	Tugʻmaslik simptomlari	25	21%
6	BMI > 25 (semizlik)	30	25%



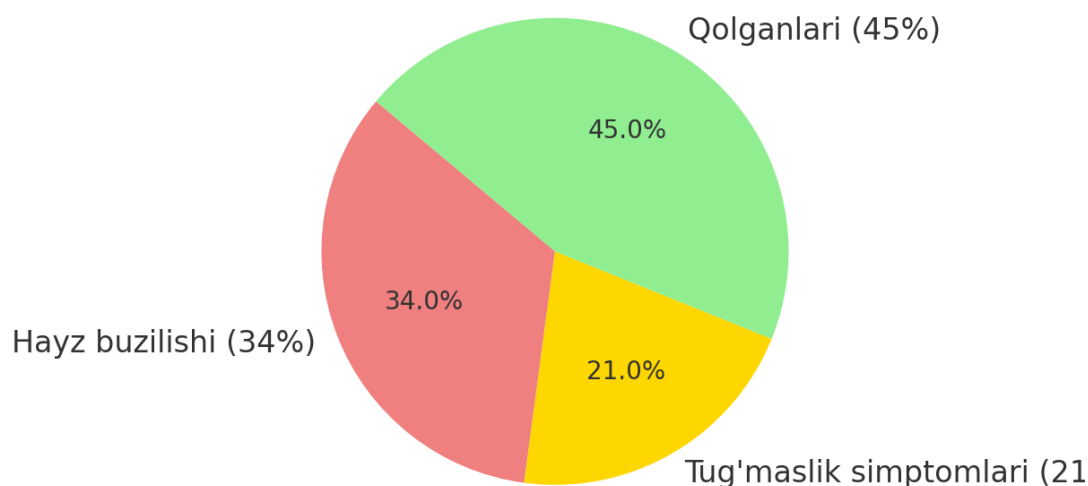
1-diagramma. Ovqatlanish bilan bog'liq omillar (bar-chizmasi bo'yicha)

Tadqiqot davomida 58% ayollarda vitamin va mikroelementlar yetishmasligi kuzatildi. 47% doimiy ravishda shirinliklar, quritilgan don mahsulotlari va tez tayyor taomlar iste'mol qilishini ma'lum qilgan. 63% o'zboshimchalik bilan parhezga amal qilgan, bu esa gormonal buzilishlarga olib kelgan.

2-Jadval. Mikroelement yetishmasligi va ginekologik muammolar o'rtasida bog'liqlik

Mikroelement	Etishmovchilik holati (%)	Aniqlangan ta'sir
Temir	40%	polikistik tuxumdond sindromi va tug'maslik xavfi 2.5 baravar yuqori
D vitamini	35%	Hayz buzilishi, reproduktiv qobiliyat pasayishi
B12 vitamini	Qisman	Reproduktiv funksiyani yaxshilashda ijobiy ta'sir
Omega-3	Qisman	Gormonal balansni qo'llab-quvvatlaydi

Ginekologik muammolar taqsimoti



Tadqiqot davomida 34% ayolda hayz ko'rishdagi buzilishlar, 21% da tug'maslik simptomlari qayd etilgan. Temir va foliy kislotasi yetishmovchiligi polikistik tuxumdon sindromi va tug'maslik xavfini 2.5 barobar oshirgan. 25% ishtirokchida BMI >25 bo'lib, PKTS bilan bog'liq bo'lgan.

Mikroelementlardan D vitamini va temir yetishmasligi bo'lgan ayollarda hayz funksiyasining buzilishi va reproduktiv qobiliyatning pasayishi aniqlangan. B12 vitamini va omega-3 moddalari iste'moli reproduktiv funksiyani yaxshilagan.

Ovqatlanish bilan bog'liq buzilishlar (semizlik, parhez, yetishmovchilik) ayollarda ginekologik muammolarning asosiy sabablaridan biri bo'lib xizmat qilmoqda.

Mikroelementlarning yetishmasligi, ayniqsa temir va D vitamini, reproduktiv faoliyatga salbiy ta'sir ko'rsatmoqda.

Ratsional, muvozanatlashtirilgan ovqatlanish gormonal muvozanatni saqlashda muhim rol o'ynaydi.

MUNOZARA

Olingan ma'lumotlar ayollar salomatligida ovqatlanish asosiy rol o'ynashiga dalildir. Temir, foliy kislotasi va D vitamini yetishmovchiligi gormonal faoliyatga ta'sir qilib, ovulyatsiyani buzadi. Shuningdek, yog'li, shirin va qayta ishlangan mahsulotlar bilan noto'g'ri ovqatlanish yoki qattiq parhezga amal qilish ayollarda reproduktiv muammolarni keltirib chiqaradi.

Semizlik ham polikistik tuxumdon sindromi va metabolik buzilishlarni kuchaytiradi. Ammo oziqlanishdan tashqari boshqa omillar (stress, irsiyat, ekologik

sharoit) ham hisobga olinishi kerak. Demak, shaxsiy parhez va kompleks yondashuv zarur.

XULOSA

Ayollardagi oziqlanish holati ularning ginekologik salomatligiga sezilarli ta'sir ko'rsatadi. To'g'ri va to'liq ratsion gormonal muvozanatni ta'minlab, hayz siklini va tug'ish qobiliyatini normal holda saqlashga yordam beradi. Noto'g'ri ovqatlanish esa polikistik tuxumdon sindromi va tug'maslikka olib keladi. Shu sababli, ayollar orasida sog'lom ovqatlanishni targ'ib qilish va oziqlanish bo'yicha ta'lim berish muhim ahamiyatga ega.

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THE IMPORTANCE OF DEVELOPING METACOGNITIVE STRATEGIES IN TEACHING SPEAKING

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Abstract: this research aimed to find out the student ability in speaking at students t Junior High School 2 Panca Rijang and this study is the result of a report from a case study on the effect of metacognitive teaching on speaking ability of lowranking junior high school students, the metacognitive strategy influences students' speaking achievement, namely by conducting a pre-test in one group and the design of the post-test was conducted to support the findings in the results of learning speaking after training. In design, observation and qualitative questionnaires were conducted to see the process of students in learning speaking procedural knowledge of metacognition in speaking. This research applying metacognitive strategies that are developed as a way of learning. Subject, selected by simple random sampling, are 20 first grade junior high schools, Comparison of pre-test and post-test scores will show metacognitive strategy can help students who are less skilled improve their speaking skills. The results show the view that metacognitive strategy can help students with speaking skills who are less skilled improve their speaking skills, but from the overall results there still appear to be some limitations for those who are skilled with minimal results.

Keyword: metacognitive, speaking skill, junior high school, post-test scores, pre-test, vocabulary mastery test, daily vocabulary.

Introduction

Weak speaking ability, or difficulty understanding English because they are not used to speaking. External factors include English teachers who do not have the right

method of teaching speaking, facilities and infrastructure to learn speaking with low quality or classmates' interference. Various ways can be done by English teachers to overcome these obstacles one of them by using metacognitive methods. used to help students understand the way they learn; in other words, it means processes designed for students to 'think' about their 'thinking'. In describing the learning strategy, there are many definitions of learning strategy described by experts. Oxford (1990: 1) describes learning strategies as 2 steps taken by the language students to enhance their learning in the form of direct and indirect strategies. The definition has created a remarkable impact in the realm of SLA. This explanation requires effort made by students that is to develop their way of learning. Oxford divides LLSs into two parts: direct and indirect strategies. Numerous studies have shown positive effects of metacognitive strategy training on language performance. Those studies are on the focus of language skills. There have, however, been relatively few studies investigating the benefits of providing second language students with metacognitive strategy training to promote speaking skill. The other kind of study about metacognitive strategy training shows its positive impact on metacognitive strategy awareness. They show improvement of strategy use after training conducted. However, there are no details of metacognitive strategy use in the process. Before moving on to metacognitive learning, it is important to explain the term metacognitive. Flavel (1976) in Cross (2010) mentions that metacognitive means that determines one's cognitive process. In other words, think about ways of thinking. Metacognitive learning has two aspects: intentional or conscious performance of cognitive functions and knowledge and beliefs about cognitive processes. Another purpose of this research is to socialize metacognitive learning that still sounds familiar to English teachers in schools and courses and adds to the knowledge of methods and techniques of metacognitive learning

Background of the study This study is concerned with investigating students' skill who have low ability, it is commonly known that speaking is an important skill in learning a language because Language is a tool for communication. We communicate with others, to express our ideas, and to know others' ideas as well. Communication takes place, where there is speech. Without speech we cannot communicate with one another, the use of language is an activity which takes place within the confines of our community. We use language in a variety of situations. People at their workplaces, i.e. researchers working either in a medical laboratory or in a language laboratory, are supposed to speak correctly and effectively in order to communicate well with one another. Further explanation describes metacognition can most usefully be thought of as knowledge, skills, strategies, and information about cognition. From function side,

cognition acts to resolve problems and bring cognitive activity to a desirable outcome, while the metacognitive function is the monitoring and regulation of an individual's cognitive effort in solving a problem and executing a task .

Metacognitive Strategies: Metacognitive strategies can positively impact students who have learning disabilities by helping them to develop an appropriate plan for learning information, which can be memorized and eventually routine. As students become aware of how they learn, they will use these processes to efficiently acquire new information, and consequently, become more of an independent thinker. As a consequence of applying metacognitive strategies, students demonstrate an important improvement in their participation in class. Stuever observes that students increase their motivation for learning and participating actively every day for ten days. The results were positive, determining that it is possible to incorporate metacognition in traditional classrooms providing with an encouraging way of learning b. English Language Methodology Likewise, Bromley determines that there is not a specific method for teaching students. She recommends the application and combination of various methods because students have different learning styles, that is why it is relevant to take into account diverse methods that enhance the learning process. Larsen-Freeman maintains that methods serve as a foil for reflection that can aid teachers and students in bringing to conscious awareness the thinking that underlies their actions. According to Larsen Freeman, the application of various methods has in common the views that first, language can best be learnt when it is taught through communication, and second, that language acquisition can be upgraded by working not only on language, but also on the process of learning c. English Speaking Harmer states that: “the ability to speak fluently presupposes not only knowledge of language features, but also the ability to process information and language “on the spot” (p. 269). He also claims that during the process of teaching speaking or producing this English ability would be essential to apply them in three important sections: new language, practice and communicative activity. The ability of speaking is important for career success. Speaking skills can enhance one's personal life, thereby bringing about the well rounded growth they should all seek. Nunan expresses that speaking is an essential and executable tool for communicating with others Learning Procedure Researchers carry out the procedure carried out by Cross (2010) in his research. The pedagogical cycle includes a bottom-up strategy, sharing, discussion, and evaluation of strategies. In the first stage, students read conversation in the text book. Students identify words they don't understand then discuss them together. This is to prepare students and facilitate them in using strategies such as inference or elaboration. Then, students

discuss the text and share their opinions on the topic. Then the students listened to recorded conversation for 1-2 minutes, Students then answer the pre-test questions given as many as ten questions. In answering questions they can discuss to help them gather information that they passed. Then they collect their pre-test which is directly processed by researchers. Then, the researcher teaches the pedagogical cycle and strategies for listening, the researcher gives a second text to prepare for listening and practicing the conversation. And the last students evaluate their performance and the strategies they use for other activities. Students work on post-test. Vocabulary Mastery Test is testing someone's knowledge in understanding and comprehending words meaning and can be used in arranging the sentence to communicate. The scope of vocabulary is not only in diction but also it must be suited with the situation and the person who become partner in the communication. In this case with low ability students, the test is arranged to be easier and using daily vocabulary that they usually use in their activities The procedure of these two tests involves the activity speaking by the learner. Learners are also asked to underline vocabulary that is not understood to be discussed together. Students then listen to the news twice and take notes in each segment. Previously the learner had also been divided into several groups of three or four people to facilitate the discussion of strategies and to make a summary. Based on the prates data, it was concluded that there were three students who got the lowest grades, namely Putri Aditama, Putri Sri Angraini and Resky Hedyla L. Earlier predictions were also made by the teacher based on his teaching experience that students named Putri Aditama were weak in learning Speaking. Thus the focus of the study can be determined, namely on the three students with the lowest grades. Furthermore, from the pre-test results it is also known that. Diana parha gets the highest score. So that later it can be seen whether the metacognitive strategy influences high-ability student.

DISCUSSION

This study aims to determine the effect of the pedagogical cycle on improving speaking to low-ability students. All students involved in the pedagogical cycle are also taught several metacognitive strategies to encourage their understanding in speaking. The research findings show that two students with low speaking ability increased in this study. They felt the metacognitive strategy helped him to better understand the material being tough this is supported by statements from interviews conducted by researchers after the learning process. The main reason students with this less skilled speaking ability show a significant increase is that they have not improved their

knowledge and ability to reconstruct information when listening, before metacognitive learning is carried out. However, systematically and continuously they orchestrate certain cognitive strategies and metacognitive strategies. From the results above, the dominance of development that is not so significant is shown by students with sufficiently skilled listening skills. Three students did not show progress by showing the same results in the pre-test and post-test. This might be because they have mastered a strong understanding and control of several strategies. So their participation in the pedagogical cycle is less significant. From the results of interviews with students who were already proficient and showed only insignificant results, it was found that he used a strategy of maintaining interest in listening. Andi Diana Parha states that by maintaining interest provides a fairly clear in constructing information when she is practicing speaking while namely Putri Aditama, Putri Sri Angraini and Resky Hedyla L they tend to use directed attention strategies, selective attention and visualization in speaking practice .

The implementation of metacognitive strategies in teaching speaking

According to Chamot et al metacognitive strategies consist of four steps. They are planning, monitoring, problem-solving, and evaluating. The four strategies are not always employing sequential but sometimes they are necessary depending on the demands of the task and the interaction between the task and the learner. a. Planning Although the planning strategies happen at the beginning of the learning, sometimes the good learners need to revise it to rethink plans to get back on track .Based on the result of interview and observation of teaching learning process, the students are able to implement the set goal, directed attention in the learning process, but the students could not implement active background knowledge by teacher 1. While based on the results of interviews and observations of the teaching and learning activities in the classroom taught by teacher 2, it was found that in planning strategies, the students were able to implement set goals, directed attention, active background knowledge, and predict. On the set goals indicator, based on the results of observation classroom, the class that taught by teacher 1 and teacher 2 are applied this part. So the students are able to set their own learning goals. This is support with the opinion of Chamot et al that the good learners need to revise the goals of learning to rethink plans to get back on track. On the directed attention indicator, based on the results of observation classroom, the class that taught by teacher 1 and teacher 2 are applied this stage. The importance of directed attention according to Chamot et al that if the learner cannot control the attention to the task, little learning takes place. Direct attention helps the

learner to build up concentration. Next is the indicator of active background knowledge. In classes taught by teacher 1 not applied this stage. This is in line with the opinion of teacher 1 in interview which states that the basic abilities of students in the class are lacking, so it is difficult to relate their background knowledge to the new information that will be received. Whereas the class taught by teacher 2 applies this stage. In the predict indicator, based on the results of observation classroom, class taught by teacher 2 applied this stage. The importance of directed attention according to Chamot et al that anticipating information gives you direction for doing the task because you will be attuned to certain types of information.

b. Monitoring Based on the result of interview and observation of teaching-learning process, in the class taught by teacher 1 and teacher 2 the results are obtained at monitoring strategies, the students are able to implement selective attend, deduction/induction, personalize/contextualize, take notes, and cooperate for teacher 1. Whereas based on the results of the interview and observation the activities of the teaching and learning process in the class taught by teacher 2 showed that at monitoring strategies, the 13 students are able to implement selective attend, deduction/induction, personalize/contextualize, take notes, use imagery and cooperate. On the selective attend indicator, based on the results of research on the class taught by teacher 1 and teacher 2, both of them applied this part. The importance of selective attend according to Chamot et al that deciding to focus on specific information make it easier to identify the critical information for learners' goal because they can give full concentration on the important information. In the deduction/induction indicator, based on the results of research in the class, the class that taught by teacher 1 and teacher 2 are applied this part. The importance of deduction/induction according to Chamot et al that think about what you already know helps you get ready for familiarizing yourself with the task. Behaving it, the learner easier understands by linking their background knowledge and new information on the task. On the personalize/contextualize indicator, based on the results of research in the class, the class that taught by teacher 1 and teacher 2 are applied this part. The importance of personalizing according to Chamot et al that Checking language input and output against what you know help the learner ensure that it makes sense. Connecting information to the learners' experience makes the task more meaningful and memorable. In the take notes indicator, based on the results of research in the class, the class taught by teacher 1 and teacher 2 are applied this part. The importance of taking notes according to Chamot et al that writing down important information in a form such as a T list, semantic web, or outline can help the learners remember and understand the organization of information. On the use imagery indicator, based on the

result of research in the class, only the class that taught by teacher 2 are applied this part. The importance of use imagery according to Chamot et al that forming picture is a way to check the information makes sense to control the inconsistencies the learner's mental images on the task. In cooperate indicator, based on the results of research in the class, the class taught by teacher 1 and teacher 2 are applied this part. The importance of cooperates according to Chamot et al that working with other people gives the learners better a chance to their ideas or strength so that they can do a better job. c. Problem Solving Based on the result of the interview and observation of the teaching-learning process, the students are able to implement ask the question to clarify and use resources in the class that taught by teacher 1 and teacher 2. The importance of ask the question to clarify according to Chamot et al that asking problems to other people can help the learner solve the problem in comprehending a task. On the use resources indicator, based on the results of research in the class, the class that taught by teacher 1 and teacher 2 are applied this part. The importance of use resources according to Chamot et al that looking up unfamiliar information in a reference source can help the learner solve a complex problem. d. Evaluating 14 Based on the result of the interview and observation of the teaching-learning process in the classroom taught by teacher 1, it was found that in evaluating strategies the students are able to implement evaluate yourself stage. While based on the results of interviews and observations of the teaching and learning activities in the classroom taught by teacher 2, it was found that in evaluating strategies, the students were able to implement summarize stage. In evaluating yourself, based on the results of research in the class, a class that taught by teacher 1 is applied this part. The importance of evaluates yourself according to Chamot that self-evaluating helps the learner identifies the strengths and weakness so that the learner can do better next time. In summarize indicator, based on the results of research in the class, the class taught by teacher 2 is applied this part. The importance of taking summarizes to Chamot et al, that restating the gist the message helps the learner to decide how well he or she understood. Based on the conclusions from the data presented previously, those are from interview data and class observations, it can be concluded that the implementation of metacognitive strategies in the class taught by teacher 2 is more than the implementation of metacognitive strategies in the class taught by the teacher 1. 3. The impact of implementation metacognitive strategies on the students' speaking performance The data obtained based on the results of the teachers' interview and observation classroom. Based on the results interview of the teacher 1 and teacher 2, interviews regarding the impact of metacognitive strategies on the learning process of students from the teacher's view, it

can be concluded that students' abilities and activeness of students in varied classes, where there are active students, there are students who are inactive and there are students in the middle so the implementation of metacognitive strategies is still lacking. However, for students who are able to implement this metacognitive strategy well, the impact on students' learning process is that students will become active and become independent learners and their ability to capture learning outcomes will be much better compared to students who lack implementation in metacognitive strategies. As stated by Corebima & Idrus who suggested that metacognitive strategies are strategies used by students in their learning activities where there are differences between students who are less intelligent and smarter, indicated by differences in metacognitive abilities. If students have metacognition, students will be skilled in using metacognitive strategies. Students who are skilled in using metacognitive strategies will more quickly become independent learners.

CONCLUSION

This small-scale study, specifically conducted in English class as a foreign language that only focuses on simple conversation to less skilled learners, the results show empirical data to support the principle of metacognitive learning using cycles pedagogical can be useful to guide and facilitate students who are less skilled in their speaking skill. The implication of this research is to offer teachers the concept of metacognitive learning in other contexts and practical pedagogical approaches that can be applied to the development of abilities in learning speaking. However, metacognitive learning does not equitably benefit all learners in the class. The teacher must consider how to combine this learning with other learning speaking strategies. Moreover, the development of metacognitive strategies plays a pivotal role in enhancing learners' speaking skills. By fostering awareness, planning, monitoring, and self-evaluation, metacognitive strategies empower students to become more autonomous and reflective speakers. These strategies not only improve fluency and coherence but also boost learners' confidence and motivation in communicative settings. Therefore, integrating metacognitive instruction into speaking lessons is essential for equipping learners with lifelong language learning skills and ensuring more effective and meaningful language use.

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SEMIZLIKNING IQTISODIY OQIBATLARI: SOG'LIQNI SAQLASH XARAJATLARI VA ISHCHI KUCHIGA TA'SIRI.

Sh.S.Safaraliyeva, G.B. Begimqulova

Annotatsiya: Ushbu maqola semizlikning zamonaviy iqtisodiyotga ko'rsatadigan ta'siri cguqur tahlil qilingan . Xususan, semizlik bilan bo'liq sog'liqni saqlash xarajatlarining ortishi, ishchi kuchining unumdorligiga salbiy ta'siri, mehnatga layoqatli yillarning qisqarishi va ijtimoiy-iqtisodiy tengsizliklar yoritilgan. Maqola shuningdek , semizlikning oldini olishning iqtisodiy samaradorligini ham asosli dalillar bilan ko'rsatadi. Tahlillar shuni ko'rsatadiki, semizlikka qarshi kurashish davlat miqiyosida sog'liqni saqlash strategiyasi bilan bir qatorda iqtisodiy taraqqiyot siyosatining ajralmas qismiga aylanishi lozim

Kalit so'zlar: semizlik ,iqtisodiy oqibatlar, sog'lini saqlash xarajatlari,ishchi kuchi, mehnat unumdorligi, diskrinatsiya, iqtisodiy tengsizlik, surunkali kasalliklar, profilaktika, sog'lom turmush tarzi.

Аннотация: В статье представлен углубленный анализ влияния ожирения на современную экономику. В частности, подчеркивается рост расходов на здравоохранение, связанный с ожирением, негативное влияние на производительность труда, сокращение трудовой жизни и социально-экономическое неравенство. В статье также приводятся научно обоснованные данные об экономической эффективности профилактики ожирения. Анализ показывает, что борьба с ожирением должна стать неотъемлемой частью политики экономического развития, наряду с национальной стратегией здравоохранения.

Ключевые слова: ожирение, экономические последствия, расходы на здравоохранение, рабочая сила, производительность труда, дискриминация, экономическое неравенство, хронические заболевания, профилактика, здоровый образ жизни.

Abstract: This article provides an in-depth analysis of the impact of obesity on the modern economy. In particular, it highlights the increased health care costs associated with obesity, the negative impact on labor productivity, the reduction of working life, and socio-economic inequalities. The article also provides evidence-based evidence for the economic effectiveness of obesity prevention. The analysis shows that combating obesity should become an integral part of economic development policies, along with national health strategies.

Keywords: obesity, economic consequences, health care costs, labor force, labor productivity, discrimination, economic inequality, chronic diseases, prevention, healthy lifestyles.

Semizlik (obezite) bugungi kunda jahon sog‘lig‘i uchun eng jiddiy tahdidlar qatorida turibdi. Uni faqatgina individual sog‘liq muammosi deb emas, balki ijtimoiy va iqtisodiy inqiroz sifatida ham ko‘rish kerak. Jahon Sog‘liqni Saqlash Tashkiloti (JSST) hisob-kitoblariga ko‘ra, 2025-yilga borib dunyoda 1,5 milliarddan ortiq odam semizlikdan aziyat chekadi. Bu holat sog‘liqni saqlash tizimlariga katta bosimni, ishlab chiqarishning pasayishini, ishchi kuchining sifatiga salbiy ta’sirni va davlat iqtisodiyotiga bevosita zarar yetkazishni anglatadi.

Sog‘liqni saqlash tizimidagi moliyaviy yuk

Semizlik bilan bog‘liq kasalliklar — 2-tur qandli diabet, yurak-qon tomir xastaliklari, insult, osteoartrit, nafas olish muammolari, bepushtlik va ayrim saraton turlari kabi surunkali kasalliklarni keltirib chiqaradi.

Moliyaviy yuk tahlili:

AQShda semizlik bilan bog‘liq sog‘liqni saqlash xarajatlari yiliga \$147–210 milliard oralig‘ida baholanmoqda.

Buyuk Britaniyada esa semizlik sog‘liqni saqlash xizmatlari xarajatlarining 9% ini tashkil qiladi. JSST ma’lumotlariga ko‘ra, rivojlanayotgan mamlakatlarda semizlik bilan bog‘liq sog‘liqni saqlash xarajatlari yalpi ichki mahsulotning (YaIM) 2-7% gacha qismini tashkil etishi mumkin.

O‘zbekiston singari mamlakatlarda ushbu xarajatlar kamroq ko‘rinsa-da, iqtisodiy imkoniyatlar nisbatan cheklanganligi tufayli ta’siri kuchli seziladi.

Davlat budjetiga ta’siri:

Profilaktika choralari ko‘rilmagan holatda, davlat tibbiy xizmatlar va dori-darmon xarajatlarida tobora ko‘proq resurs sarflaydi.

Davlat tomonidan subsidiyalangan sog‘liqni saqlash tizimlari bu yukni ko‘tarishda qiynaladi.

Ishga layoqat va samaradorlik:

Semiz ishchilarda kasallik ta‘tili olish holati sog‘lomlarga qaraganda 50% ko‘proq.

Ular mehnat samaradorligini kamaytiradi, natijada ishlab chiqarish jarayonlarida tanaffuslar, sekinlik va energiya pasayishi kuzatiladi.

AQShda semizlik tufayli mehnat unumdorligi yo‘qotilishi har yili \$4,3 milliard atrofida iqtisodiy zarar keltiradi.

Ish o‘rnida diskriminatsiya:

Semiz odamlar ko‘pincha ishga yollashda kamroq ustuvorlikka ega bo‘ladi.

Ularning ish haqlari sog‘lomlarga nisbatan o‘rtacha 10-15% kamroq bo‘lishi mumkin.

Ayrim kasblarda vazn bo‘yicha bevosita cheklovlar mavjud bo‘lib, bu ishga joylashish imkoniyatlarini toraytiradi.

Ishga layoqatli yillar sonining qisqarishi:

O‘rtacha hisobda semiz kishilar sog‘lom odamlarga qaraganda 5–10 yil kamroq mehnat faoliyatida bo‘lishadi.

Bu esa nafaqat ishlab chiqarish yo‘qotilishiga, balki pensiya va ijtimoiy nafaqalar yukining oshishiga ham olib keladi

Ijtimoiy va iqtisodiy tengsizliklar

Semizlik ko‘pincha daromadi past bo‘lgan qatlamlar orasida ko‘proq tarqalgan bo‘ladi. Bunga quyidagi omillar sabab bo‘ladi:

1. Arzon lekin nosog‘lom ovqatlarning ommabopligi.
2. Sog‘lom ovqatlanish va jismoniy faollik uchun infratuzilmaning zaifligi.
3. Sog‘liq haqida bilim yetishmasligi va ta‘lim darajasining pastligi.

Bu esa iqtisodiy tengsizlikni yanada chuqurlashtiradi va ijtimoiy zo‘riqishlar keltirib chiqaradi. Rivojlanayotgan davlatlarda bu jarayon jamiyatning sog‘lom taraqqiyotiga jiddiy to‘siq bo‘ladi.

Semizlikning oldini olish- uzoq muddatli iqtisodiy investitsiya.

Semizlikni oldini olish bo'yicha har qanday xarajatlar uzoq muddatda ijobiy iqtisodiy natijalarni beradi.

Har 1 dollarlik profilaktika sarmoyasi 6-10 dollarlik sog'liqni saqlash xarajatlarini tejaydi.

Maktablarda sog'lom ovqatlanishni targ'ib qilish , sog'lom turmush tarzini rag'batlantirish , sport va jismoniy faollikni ommalashtirish orqali semizlik darajasini kamaytirish mumkin.

Davlatlar soliq siyosatida o'zgrish kiritib , shakarli va yog'li mahsulotlarga aksiz solig'I qo'llash orqali iste'molni kamaytirishadi.(masalan Meksika, Vengriya, Buyuk Britaniya)

Xulosa

Semizlik XXI asrning eng jiddiy sog'liq va iqtisodiy muammolaridan biridir. U sog'liqni saqlash tizimlarida ortiqcha xarajatlar, ishchi kuchining pasayishi, iqtisodiy samaradorlikning kamayishi, ijtimoiy tengsizlik va diskriminatsiyaga olib keladi. Davlatlar uchun bu muammo bilan kurashish, faqat sog'liqni saqlash emas, balki iqtisodiy strategiya sifatida qaralishi zarur. Har bir fuqaro va jamiyat a'zosi sog'lom turmush tarzini shakllantirish orqali nafaqat o'z sog'lig'ini, balki butun jamiyatning iqtisodiy barqarorligini ham ta'minlashi mumkin.

PHARMACEUTICAL CHEMISTRY: DRUG SYNTHESIS AND MECHANISM OF ACTION

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Annotation: This article explores the field of pharmaceutical chemistry with a focus on the synthesis of drugs and their mechanisms of action. It highlights the processes involved in designing and developing pharmaceutical compounds, examining how molecular structure influences biological activity. Special attention is given to the stages of chemical synthesis, pharmacodynamics, and pharmacokinetics. Understanding these aspects is crucial for developing effective and safe medications. The article also discusses current trends and innovations in drug design, contributing to advancements in modern medicine.

Keywords: Pharmaceutical chemistry, Drug synthesis, Mechanism of action, Pharmacodynamics, Pharmacokinetics, Molecular structure, Medicinal compounds, Drug design, Chemical reactions, Bioavailability, Therapeutic effect, Active pharmaceutical ingredients, Drug development.

Introduction.

Pharmaceutical chemistry is a critical branch of science that focuses on the design, synthesis, and development of pharmaceutical compounds. It combines principles from chemistry, biology, and medicine to create effective and safe drugs. The process of drug synthesis involves the chemical creation of compounds that can have therapeutic effects on the human body. However, it is not enough to simply create these compounds; understanding their mechanisms of action is essential for ensuring that they are effective and safe. Pharmacodynamics and pharmacokinetics play

significant roles in determining how a drug interacts with the body and how the body processes the drug. The molecular structure of a compound greatly influences its ability to interact with biological targets and produce desired therapeutic outcomes. This article aims to provide an in-depth analysis of the synthesis of drugs and the underlying mechanisms by which they exert their effects, emphasizing the importance of pharmaceutical chemistry in the development of modern medicine.

Main Section.

Pharmaceutical chemistry is an interdisciplinary science that integrates chemistry, biology, and pharmacology to create and optimize drugs. The process of drug synthesis is complex and involves several key stages, including the design of the drug molecule, its chemical synthesis, and its eventual testing for efficacy and safety. The synthesis of pharmaceutical compounds requires a thorough understanding of organic chemistry, as well as the ability to manipulate chemical structures to achieve the desired therapeutic effects. Once a drug has been synthesized, understanding its mechanism of action is crucial for ensuring that it interacts with the body in the desired way. The mechanism of action refers to the specific biochemical interaction through which a drug produces its effects. For most drugs, this involves binding to specific receptors or enzymes in the body, thereby triggering a series of chemical reactions that lead to the intended therapeutic outcome. The effectiveness of a drug is determined by how well it can bind to its target and the strength of this interaction. In addition to understanding how drugs work, pharmaceutical chemistry also involves studying pharmacokinetics. This refers to how the body absorbs, distributes, metabolizes, and eliminates a drug. Pharmacokinetics helps to determine the appropriate dosage and frequency of administration of a drug, ensuring that it reaches the right concentration in the body to produce the desired effect while minimizing toxicity. Advances in pharmaceutical chemistry have led to the development of new drug classes and more effective treatments for a wide range of diseases. The ability to design and synthesize drugs with specific targets has revolutionized the treatment of chronic conditions, cancers, infections, and other serious health issues. The ongoing development of drug synthesis techniques, combined with a deeper understanding of molecular interactions, continues to drive progress in the field of medicine.

Conclusion:

Pharmaceutical chemistry is fundamental to the development of modern medicine, as it combines the principles of chemistry and biology to create drugs that can effectively treat a wide range of health conditions. The synthesis of pharmaceutical

compounds and understanding their mechanisms of action are crucial steps in ensuring their efficacy and safety. Through advancements in drug synthesis, pharmacodynamics, and pharmacokinetics, the field has made significant contributions to improving healthcare and quality of life. As research continues, new techniques and discoveries in pharmaceutical chemistry will likely lead to the creation of more targeted and effective therapies, further transforming the landscape of medical treatments.

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TASHKILOT SAMARALI BOSHQARUVIDA ONBOARDING JARAYONINING O‘RNI

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Annotatsiya: Mazkur maqolada onboarding jarayonining tashkilot samarali boshqaruvidagi o‘rni tahlil qilinadi. Shuningdek, maqolada xorijiy olimlarning onboarding tushunchasi bo‘yicha tadqiqotlari o‘rganilib, uning mazmun-mohiyati, o‘ziga xosligi muhokama qilingan.

Kalit so‘zlar: onboarding, xodimlarni boshqarish, adaptatsiya, samarali boshqaruv, HR menejment.

Annotation: This article analyzes the role of the onboarding process in the effective management of an organization. Additionally, the research of foreign scholars on the concept of onboarding is examined, and its essence and distinctive features are discussed.

Keywords: onboarding, employee management, adaptation, effective management, HR management.

Аннотация: В данной статье анализируется роль процесса онбординга в эффективном управлении организацией. Также рассматриваются исследования зарубежных ученых по понятию онбординга, обсуждаются его сущность и особенности.

Ключевые слова: онбординг, управление персоналом, адаптация, эффективное управление, HR-менеджмент.

Bugungi globallashuv sharoitida zamonaviy boshqaruv tizimi doimiy o‘zgarish va rivojlanish jarayonini boshdan kechirmoqda. Texnologik taraqqiyot, raqamli transformatsiya va sun‘iy intellekt kabi omillar tufayli boshqaruvning an‘anaviy usullari o‘zgarib, yangi yo‘nalishlar va tushunchalar shakllanmoqda.

XIX asr sanoat inqilobi bilan boshqaruv tamoyillariga ilmiy yondashuvlar paydo bo‘lgan bo‘lsa, XXI asr – axborot asri – boshqaruv tizimining yanada kompleks va moslashuvchan bo‘lishini talab qilmoqda. Endilikda korxonalar va tashkilotlar

innovatsion yondashuvlar, raqamli boshqaruv, masofaviy ish tizimlari, moslashuvchan yetakchilik kabi yangi tamoyillarga tayanmoqda.

Boshqaruv tizimidagi eng muhim o'zgarishlardan biri – inson kapitaliga asoslangan strategiyalar bo'lib, bunda xodimlarning malakasi, ijodkorligi va bilimlari tashkilotning asosiy boyligi sifatida qaralmoqda.

Ushbu jarayonlarda onboarding tushunchasi ham alohida ahamiyat kasb etadi. Bu atama ilk bor o'tgan asrning 70-yillarida menejerlar tomonidan qo'llanila boshlangan. "Onboarding" so'zi ingliz tilidagi "on board" iborasidan kelib chiqqan bo'lib, so'zma-so'z tarjima qilinganda "kemaga chiqish" yoki "bortda bo'lish" degan ma'noni anglatadi[1]. Bu tushunchaning kelib chiqishi esa qaroqchilar kemasi yoki samolyot jamoasi bilan bevosita bog'liq. Chunki ekipaj yoki qaroqchilar o'ziga xos qoidalarga qat'iy amal qiladi. Yangi odamni ushbu jamoaga qo'shish esa uni "bortda bo'lish" degan ma'noni anglatib, unga barcha muhim jihatlarni tushuntirishni talab qiladi. Natijada yangi a'zo jamoaning ichki tartib-qoidalari, vazifalari va umumiy maqsadlarini tushunib, tezda o'z o'rnini topadi hamda jamoa bilan samarali hamkorlik qila boshlaydi. Ushbu jarayonni, o'zbek tilidagi "Kemaga tushganni joni bir" maqoli bilan bog'lagan holda kemani yangi a'zo xatosi evaziga kema cho'ktirib yubormasligi uchun tartib-intizomni tushuntirilgan. Bu orqali yangi jamoa a'zosi o'zni qulay his qilishi va moslashishiga yordam berilgan.

Onboarding jarayoni ko'plab olimlar va tadqiqotchilar tomonidan o'rganilgan. Jumladan, V. Ogloblin va A. Datskolar onboarding tushunchasini yangi xodim kompaniyaning korporativ, ijtimoiy va ish muhitiga qulay moslashishi va samarali integratsiyasini ta'minlaydigan vositalar majmuasi sifatida ta'riflaydilar[2]. Talya Bauerning fikricha, yaxshi tashkil etilgan onboarding jarayoni yangi xodimlarning ishdan qoniqishini oshirib, tashkilotda qolish ehtimolini ko'paytirs[3], Michael Watkinnga ko'ra yangi xodimlarning dastlabki 90 kunini samarali boshqarish orqali ularning uzoq muddatli muvaffaqiyatini ta'minlash mumkinligini ta'kidlaydi[4].

Saks va Belcourt onboardingni kompaniyaning strategik xodimlar boshqaruvi tizimining ajralmas qismi sifatida ko'rib, yangi xodimlarning mahorati va qobiliyatlarini rivojlantirish uchun o'ta muhim ekanligini, tashkilotning umumiy samaradorligini oshirishga xizmat qilishini tahlil qiladi[5]. Klein va Polinlar onboarding jarayonida mentorlik rolini alohida ta'kidlab, yangi xodimlarni tashkilotning missiya va qadriyatlari bilan tanishtirishda asosiy omil ekanini, muvaffaqiyatli integratsiyani ta'minlashga xizmat qilishini aytib o'tadi[6]. Bendix esa onboarding jarayonini kompaniyada yangi xodimlarning uzoq muddat qolishiga ta'sir

qiluvchi muhim omil sifatida ko‘rib, ish samaradorligi o‘sishi va barqarorligi ta‘minlanishida muhimligini qayd etadi[7].

Demak, yuqoridagi olimlarning fikridan bilishimiz mumkinki, onboarding faqatgina yangi xodimlarni ish muhitiga moslashtirish vositasi emas, balki tashkilotning umumiy natijadorligini oshirishga xizmat qiladigan strategik boshqaruv instrumentlaridan biri sifatida qaralishi lozim. Bu jarayon xodimlarni boshqarish tizimida eng muhim bosqichlardan biri ekanligi, yangi xodimlarni ish joyiga muvaffaqiyatli integratsiya qilish dolzarb vazifa ekanligini anglatadi.

2010-yilda Portland davlat universitetining Biznes maktabi professori Talya Bauer tomonidan onboardingning 4C modeli ishlab chiqilgan. Bu modeli yangi xodimlarni tashkilotga muvaffaqiyatli integratsiya qilishning samarali usuli bo‘lib, uning yordamida yangi xodimlarning qisqa muddatlarda moslashishini, ish samaradorligining oshirishini, tashkilotga sodiqligining mustahkamlashini ta‘minlash mumkin. Ushbu model 4 ta inglizcha so‘zlarning bosh harfidan olingan bo‘lib, ular quyidagilar kiradi:

1. Muvofiqlik (Compliance). Yangi xodimlarni kompaniyaning siyosati, qoidalari va huquqiy talablariga moslashtirishni o‘z ichiga oladi. Bu bosqichda yangi ishchilarga mehnat shartnomalari, kompaniya siyosati, xavfsizlik, ish tartibi va boshqa qoidalar tushuntiriladi.

2. Aniqlik (Clarification). Xodimning o‘z vazifalari va majburiyatlari bo‘yicha to‘liq tushuncha olishini ta‘minlaydi. Bu bosqich ish jarayonidagi aniqlik va tushunmovchiliklarning oldini olishga xizmat qiladi.

3. Madaniyat (Culture). Kompaniya qadriyatlari, missiyasi, ish uslubi va muhitining o‘ziga xos xususiyatlarini tushuntirishni nazarda tutadi. Madaniyat elementi yangi ishchiga tashkilotning umumiy yo‘nalishini tushunishga yordam beradi.

4. Aloqa (Connection). Jamoadagi boshqa xodimlar bilan ijtimoiy aloqalarni rivojlantirishga yordam beradi. Bu bosqich yangi ishchilarning o‘zlarini jamoaning bir qismi sifatida his qilishlari uchun muhimdir. Jamoaviy uchrashuvlar va norasmiy tadbirlar o‘tkaziladi hamda mentorlik tizimi orqali yangi xodimga yordam beriladi.

Tadqiqotlar shuni ko‘rsatmoqdaki, kompaniyalarda samarali onboarding tizimi joriy etilganda, yangi xodimlarning motivatsiyasi ortadi, ularning ishga jalb etilish darajasi yuqori bo‘ladi va ish joyidagi barqarorlik ta‘minlanadi. Tahlillarga ko‘ra, to‘g‘ri yo‘lga qo‘yilgan onboarding jarayoni tashkilotda xodimlarni ushlab qolish ko‘rsatkichlarini 50% gacha oshirishga, ish samaradorligini esa 25% gacha yaxshilashga yordam beradi. Biroq, ko‘plab korxonalarda onboarding jarayoni faqat hujjatlarni rasmiylashtirish va dastlabki ko‘rsatmalar berish bilan cheklanadi, natijada

yangi xodimlar o'zlarini tashlab qo'yilgandek his qilishadi va qisqa vaqt ichida ish joyini tark etish ehtimoli oshadi. Xodimlar o'rtasidagi muloqot, kompaniya madaniyati bilan tanishtirish va dastlabki kunlardagi qo'llab-quvvatlash yetarlicha yo'lga qo'yilmasa, bu jarayon samarasiz bo'lib qoladi.

Zamonaviy boshqaruvda tashkilot xodimlarining qo'nimsizlik darajasining ortishi ish samaradorligiga va korxona barqarorligiga jiddiy xavf sifatida qaraladi. Global raqobatning kuchayishi, malakali kadrlarning yetishmasligi va xodimlarning ish joyini tez-tez almashtirishi sababli kompaniyalar yangi kadrlarni qisqa vaqt ichida samarali ravishda jalb qilish va ularni saqlab qolish uchun innovatsion yondashuvlardan foydalanishga majbur. Chunki tashkilot xodimlarsiz muvaffaqiyatga erisha olmaydi. Xodimlarning samaradorligi, ishga intilishi va sodiqligi tashkilotning rivojlanishiga bevosita ta'sir ko'rsatadi. Shu bilan birga, yangi xodimlarni ishga olish va ularni qisqa fursatlarda ish jarayoniga jalb etish murakkab va mas'uliyatli jarayon bo'lib, unda onboarding tizimi muhim rol o'ynaydi.

Ko'plab tashkilotlarda onboarding va adaptatsiya jarayonini bir-biriga sinonim so'zlar sifatida qo'llashadi. Lekin ular o'rtasida bir qancha farqlar mavjud. Mazkur tafovutlarni 1-jadvalda batafsil ko'rish mumkin.

1-jadval

Onboarding va adaptatsiya jarayonlarining farqlari

T/r	Mezon	Onboarding	Adaptatsiya
1.	Ta'rif	Yangi xodimni ish jarayoniga tez va samarali jalb qilish, uni tashkilot madaniyatiga integratsiya qilish jarayoni.	Yangi xodimning ish muhitiga moslashishi va o'zini qulay his qilish jarayoni.
2.	Maqsadi	Xodimga dastlabki kunlardan boshlab kerakli ma'lumot va resurslarni berish, jamoaga tez qo'shish.	Xodimga yangi muhitga moslashishi uchun vaqt berish, uning ichki jarayonlarga asta-sekin kirishishini ta'minlash.
3.	Davomiyligi	Odatda 1-3 oy, ba'zi tashkilotlarda 6 oy yoki 1 yilgacha davom etishi mumkin.	Uzoqroq muddat talab etadi va tabiiy jarayon sifatida kechadi.

4.	Bosqichlari	1) Tayyorgarlik, 2) Birinchi kun, 3) Birinchi hafta, 4) Uzoq muddatli qo'llab-quvvatlash.	1) Ishga o'rganish, 2) Jamoaga moslashish, 3) Ish unumdorligini oshirish.
5.	Yondashuv	Rasmiy (treninglar, mentorlik, hujjatlar, yo'riqnoma, texnik ta'minot) va norasmiy (jamoaviy tadbirlar, suhbatlar).	Ko'proq tabiiy jarayon bo'lib, xodimning individualligiga bog'liq holda kechadi.
6.	Natijasi	Xodim tezroq moslashadi, tashkilotning madaniyati va ish jarayonlariga chuqurroq kirib boradi.	Xodim asta-sekin yangi ish sharoitiga o'rganib boradi, biroq jarayon uzoqroq davom etishi mumkin.

1-jadvaldan ko'rishimiz mumkinki, onboarding yangi xodimni tezroq va samarali ishga jalb qilish uchun rejalashtirilgan tizimli jarayon bo'lsa, adaptatsiya esa tabiiy moslashuv jarayoni bo'lib, onboardingga qaraganda uzoqroq davom etishi va shaxsiy tajribaga ko'proq bog'liq bo'lishi mumkin.

Demak, onboarding jarayoni tashkilotning samarali boshqaruv tizimini shakllantirishda muhim omil hisoblanadi. Bu jarayon yangi xodimlarni ish muhitiga qisqa muddatlarda moslashtirish, tashkilot maqsadlari va qadriyatlari bilan tanishtirishga yordam beradi. Samarali onboarding strategiyasi orqali tashkilot xodimlar o'rtasida ijobiy aloqalarni mustahkamlaydi, motivatsiyani oshiradi va ish samaradorligini yaxshilaydi. Shu bilan birga, bu jarayon kadrlar qo'nimsizligini kamaytirib, kompaniyaning umumiy muvaffaqiyatiga hissa qo'shadi.

Umuman olganda, samarali onboarding jarayoni tashkilotning raqobatbardoshligini saqlab qolish va doimiy rivojlanishini ta'minlashda muhim rol o'ynaydi. Shu sababli, tashkilot rahbarlari va HR mutaxassislari onboarding jarayonini doimiy ravishda takomillashtirib borishlari, yangi xodimlarning ishga tez va samarali moslashishini ta'minlovchi ilg'or metodlardan foydalanishlari lozim. Zero, kuchli va tizimli onboarding tizimi tashkilotning barqaror rivojlanishiga xizmat qiladi.

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STUDY OF MEDICINAL PLANTS IN THE MOUNTAINOUS REGION OF BOYSUN

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Abstract: This article analyzes the diversity of medicinal plants in Boysun district, one of the mountainous regions of Surkhandarya province, their adaptation to ecological conditions, and their ancient use in traditional medicine. During the research, major medicinal plant species found in the region (such as flax, harmala, castor bean, dandelion, licorice, wormwood, and others) were studied in terms of their biological structure, chemical composition, pharmacological properties, and practical significance. The article provides information about the health benefits of these plants, traditional remedies based on them, and the possibilities of their use in modern medicine. Moreover, traditional and scientific approaches to the collection, drying, storage, and use of medicinal plants are compared, emphasizing the importance of preserving ecological balance and the genetic resources of plants. Due to the unique geographical and climatic conditions of Boysun district, many of the plants found here belong to rare species not found in other regions. Taking into account these features, the article also explores the possibilities of studying medicinal plants on a scientific basis, promoting them widely, and turning them into an economically beneficial direction.

Keywords: Boysun district, medicinal plants, traditional medicine, pharmacological properties, ecological balance, biological diversity, mountainous region flora, chemical composition of plants, traditional healing methods, plant gene pool, nature conservation, medical application.

Introduction.

Uzbekistan is rich in a diverse range of plant species, particularly in mountainous regions, where medicinal plants are abundant both in quantity and quality. Among these

regions, Boysun district of Surkhandarya province is renowned for its unique natural conditions, clean environment, and rich flora, making it a habitat for numerous medicinal plant species. These plants have been widely used in traditional medicine since ancient times and continue to retain their significance today. Currently, there is a growing global demand for natural remedies, especially those that are environmentally friendly and non-harmful to the human body. This trend further emphasizes the importance of studying medicinal plants. In the Boysun region, various medicinal plants such as *Peganum harmala* (harmal), *Taraxacum* (dandelion), *Glycyrrhiza glabra* (licorice), *Artemisia* (wormwood), *Linum* (flax), *Thymus serpyllum* (wild thyme), *Mentha* (mint), *Pistacia vera* (pistachio), and *Ocimum basilicum* (mountain basil) are commonly found. These plants serve not only to support the health of the local population but also as valuable resources for scientific research. The collection, drying, storage, and application methods of the medicinal parts of these plants—such as leaves, flowers, roots, and seeds—are enriched with the longstanding experience of local communities. This article discusses in detail the biological and ecological characteristics of medicinal plants found in Boysun district, their pharmacological importance, their role in traditional medicine, and the potential for use in modern medical practices. Furthermore, it addresses issues related to the conservation of the gene pool of medicinal plants, the need for scientific study, and the importance of passing this knowledge on to future generations. Through this article, the relevance of thoroughly studying Boysun's natural resources and applying them in practical life is highlighted.

Main Body.

The Boysun district is located in the southern part of the Republic of Uzbekistan, within the mountainous region of Surkhandarya province. It is distinguished by its unique natural and climatic conditions, as well as its rich diversity of flora and fauna. These factors have made the area a natural habitat for many rare medicinal plants. The relatively low level of environmental pollution, clean air, and diverse soil types on the high mountains and slopes create favorable ecological conditions for the growth of medicinal plants. **Biological and Pharmacological Properties of Medicinal Plants.** Among the medicinal plants commonly found in the Boysun region are *Peganum harmala* (harmal), *Glycyrrhiza glabra* (licorice), *Artemisia absinthium* (wormwood), *Ocimum basilicum* (mountain basil), *Taraxacum officinale* (dandelion), and *Linum usitatissimum* (flax). Each plant has its own unique biological structure, chemical composition, and therapeutic properties. Licorice (*Glycyrrhiza glabra*) – The root

contains glycyrrhizin, which is widely used in the treatment of cough, bronchitis, and stomach disorders. Wormwood (*Artemisia absinthium*) – Used as a remedy for digestive issues and internal inflammation. Dandelion (*Taraxacum officinale*) – Possesses hepatoprotective and diuretic properties, beneficial for liver health. Mint and Mountain Basil (*Mentha* and *Ocimum basilicum*) – Mainly used as calming and antispasmodic agents, and in the preparation of aromatic herbal teas. These plants contain various active compounds such as alkaloids, flavonoids, saponins, essential oils, tannins, organic acids, and others, the pharmacological significance of which has been confirmed through scientific research.

Use in Traditional Medicine. The people of Boysun have long used medicinal plants in their daily lives. For example, dandelion leaves and roots have been prepared as herbal infusions to treat liver diseases, and licorice root decoctions have been used for respiratory ailments. Wormwood and harmal have traditionally been burned to purify the air and repel pests indoors. This knowledge has been passed down through generations for centuries.

Culture of Harvesting and Storage. Proper harvesting, drying, and storage of medicinal plants directly affect their healing properties. For instance, flowers should be collected after morning dew has evaporated, and leaves should be harvested during dry weather. Roots are best collected in autumn after the plant's vegetation period ends. During the drying process, maintaining the correct temperature and ventilation is crucial; otherwise, the active compounds in the plant may degrade.

The Need for Scientific Research and Conservation. Today, many species of medicinal plants around the world are at risk of extinction. In Boysun district as well, certain plants such as mountain basil and licorice are decreasing due to overharvesting and ecosystem changes. Therefore, it is essential to study, classify, cultivate artificially, and conserve these plants. In this regard, scientific research conducted in collaboration with the Academy of Sciences of Uzbekistan, the Institute of Plant Resources, local universities, and ecological organizations is of great importance.

Economic and Medical Potential. The medicinal plants of Boysun hold great potential not only in terms of medicine but also from an economic perspective. Based on these plants, biologically active supplements, natural cosmetic products, and food additives can be developed. If this sector is developed on a scientific and industrial basis, it will not only create employment opportunities for the local population but also increase the region's export potential.

Conclusion:

The Boysun district is one of the richest and most unique natural regions of Uzbekistan, and the medicinal plants growing there serve as an extremely valuable scientific and practical resource for national traditional medicine, pharmacology, and biological sciences. Research shows that the medicinal plants found in Boysun are distinguished by their ecological purity, rich chemical composition, and wide-ranging therapeutic properties. These plants have been successfully used in traditional medicine for centuries and today also hold significant potential for use in modern medical practice. Studying medicinal plants and utilizing them on a scientific basis contributes to fully realizing their medical potential, as well as to their conservation and sustainable development. Moreover, processing medicinal plants opens up opportunities for economic gain, job creation, and increased export capacity. Therefore, conducting in-depth scientific research on Boysun's medicinal plants, ensuring their protection, artificial cultivation, promoting proper usage practices among the population, and integrating them into the economy are among the most urgent and important tasks.

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ZAMONAVIY SHAHARLARDA TOZALIKNI SAQLASH: MUAMMOLAR VA INNOVATION YONDASHUVLAR.

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Anotatsiya: zamonaviy shaharlarda tozalikni saqlash bilan bog'liq asosiy muammolar va ularni bartaraf etish bo'yicha samarali va zamonaviy yechimlar tahlil qilinadi. Ayniqsa chiqindilarni boshqarish, qayta ishlash, ekologik madaniyatni shakllantirish va smart texnologiyalarning ahamiyati yoritiladi.

Kalit so'z: Chiqindilarning ortib borishi, ekologik tarbiya, innovatsiya

Muammolar

Chiqindilarning ortib borishi: shaharlarda kundalik hayotda hosil bo'layotgan chiqindilar miqdori ko'paymoqda.

Infratuzilmaning yetarli emasligi: chiqindilarni yig'ish, saralash va qayta ishlash tizimlari ko'plab shaharlarda zamonaviy talabga javob bermaydi.

Aholi madaniyatining pastligi: noto'g'ri axlat tashlash, atrof-muhitga befarqlik kuzatiladi.

Yechimlar

Ajratilgan chiqindi yig'ish tizimi: har xil chiqindilar uchun alohida konteynerlar joriy etish.

Qayta ishlash sanoatini rivojlantirish: chiqindilardan energiya va mahsulot olish.

Smart texnologiyalar: sensorli konteynerlar, chiqindi yig'ishni monitoring qiluvchi tizimlar.

Ekologik tarbiya: aholi orasida ekologik madaniyatni oshirish, maktab va mahallalarda targ'ibot ishlari.

Jamoat dizayni yechimlari: SmartForm kabi ko'p funktsiyali park mebellari orqali axlat qutilari integratsiyasini amalga oshirish.

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Xulosa: Toza va yashash uchun qulay shahar — bu nafaqat zamonaviy texnologiyalarga, balki aholining ekologik madaniyatiga ham bog'liqdir. Yangi texnologiyalar, infratuzilma va ijtimoiy ong uyg'unligi orqali toza va barqaror urbanistik muhitga erishish mumkin. Har bir fuqaroning mas'uliyati bu yo'lda muhim rol o'ynaydi.

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2. Xalqaro "Smart City" texnologiyalari bo'yicha BMT hisobotlari.
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REVIT DASTURINING ARXITEKTURA LOYIHALASHDAGI O'RNI VA AHAMIYATI

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Anotatsiya: Zamonaviy arxitektura va qurilish loyihalarini ishlab chiqishda keng qo'llanilayotgan Revit dasturining funksiyalari, afzalliklari va amaliyotdagi roli tahlil qilinadi. Revit BIM (Building Information Modeling) texnologiyasiga asoslangan bo'lib, u loyihalashtirish, vizualizatsiya, qurilish va ekspluatatsiya jarayonlarini bir tizimda boshqarishga imkon beradi.

Kalit so'z: BIM (Building Information Modeling), revit, Autodesk, vizualizatsiya.

Revit — bu Autodesk kompaniyasi tomonidan ishlab chiqilgan, binolarni axborotlashtirilgan modellashtirish (BIM) asosida loyihalash dasturidir. U arxitektorlar, dizaynerlar, muhandislar va quruvchilar uchun yagona platformada ishlash imkonini yaratadi.

Revit dasturining asosiy funksiyalari

3D modellashtirish: bino va inshootlarni hajmli shaklda yaratish va vizual ko'rinishda ko'rish.

Chizma va hujjatlar avtomatik yaratilishi: reja, kesim, fasadlar avtomatik tarzda yaratiladi.

Materiallar va strukturaviy analiz: qurilish materiallari, yuklamalar, energiya samaradorligi tahlil qilinadi.

Hamkorlik (collaboration): bir nechta mutaxassislar bitta loyiha ustida bir vaqtda ishlay oladi.

Loyihani avtomatik yangilash: bitta o'zgarish barcha tegishli joylarda avtomatik aks ettiriladi.

Revitning arxitektorlar uchun afzalliklari

Loyihani tez, aniq va yuqori aniqlikda tayyorlash.

Mijoz uchun aniq va tushunarli 3D prezentatsiyalarni ko'rsatish.

Qurilishda xatoliklarni kamaytirish.

Qurilish xarajatlarini oldindan hisoblash imkoniyati.

Loyihani bosqichma-bosqich tahlil qilish (faza bo'yicha qurilish).

Revit dasturining o'zbek arxitektura amaliyotidagi roli

O'zbekistonda ham Revit dasturi asta-sekin loyihalash amaliyotiga kirib kelmoqda. Yirik arxitektura byurolari, shaharsozlik institutlari, xususiy kompaniyalar bu platformani o'z ish faoliyatida qo'llay boshlagan. Bu esa loyihalash sifati va tezligini oshiradi, zamonaviylikni ta'minlaydi.

Xulosa: Revit dasturi — bu arxitektura va qurilish sohasida inqilobiy vosita bo'lib, nafaqat loyihalashni soddalashtiradi, balki butun qurilish jarayonini boshqarishga imkon beradi. O'zbekiston arxitekturasi ham bu raqamli texnologiyani qabul qilib, xalqaro standartlarga yaqinlashmoqda. Revit bilan ishlash har bir arxitektorning zamonaviy dunyo talablariga javob beruvchi raqobatbardosh mutaxassis bo'lishiga xizmat qiladi.

Foydalanilgan adabiyotlar:

1. utodesk Revit rasmiy qo'llanmasi – www.autodesk.com
2. "BIM Technology in Architecture and Construction" – J.C. Hartman, 2021
3. Buxoro Arxitektura-qurilish instituti Revit bo'yicha o'quv metodik materiallari
4. O'zbekiston Respublikasi Qurilish va uy-joy siyosati vazirligi axborotla

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INTERYER DIZAYNIDA YORITISH: XONALAR TURIGA QARAB YONDASHUVLAR

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Anotatsiya: Interier dizaynida yoritishning ahamiyati, turli xonalar uchun optimal yoritish usullari, tabiiy va sun'iy yorug'likning muvozanati, hamda zamonaviy texnologiyalar yordamida yoritishni boshqarish masalalari yoritiladi. Har bir xona uchun individual yoritish konsepsiyasi interier estetikasi va qulaylik darajasiga sezilarli ta'sir ko'rsatadi.

Kalit so'z: Yoritish, Interier, LED lentar, LED chiroqlar.

Yoritishning interierdagi roli

Yoritish — bu nafaqat ko'rish uchun qulaylik, balki psixologik muhitni yaratishda ham muhim element.

To'g'ri tanlangan yoritish:

xonani vizual kengaytiradi, ranglarning ifodasini ochadi, kayfiyatga ijobiy ta'sir ko'rsatadi, mehnat unumdorligini oshiradi.

Xonalar bo'yicha yoritish yondashuvlari

a) Mehmonxona (zal):

Asosiy yoritish: lyustralar yoki shiftga o'rnatiladigan chiroqlar.

Qo'shimcha yoritish: devorga osiladigan chiroqlar, polga o'rnatiladigan lampalar.

Aholat yoritish: televizor orqasida yoki tokchalar ichida yashirin yoritish.

b) Yotoqxona:

Yumshoq, issiq tonlarda yoritish.

Shift chiroqlari oʻrniga devor yoki tunuka chiroqlari.

Zonali yoritish: oʻqish stoli yoki oynali stol uchun alohida lampa.

c) Oshxona:

Ishchi zonani yoritish: stol usti, plita va rakovina oldida kuchli LED chiroqlar.

Yumshoq umumiy yoritish: shiftga oʻrnatilgan spotlar.

Estetik yoritish: shkaflar ichida yoki ostida LED lentalar.

d) Bolalar xonasi:

Yorqin, ammo koʻzni charchatmaydigan yoritish.

Geometrik yoki hayvon shaklidagi lampalar.

Tungi yorugʻlik (nightlight) bilan sokin muhit yaratish.

e) Ish xonasi:

Tabiiy yorugʻlikka yaqin lampa (6000K-6500K)

Stol lampasi bilan toʻgʻridan-toʻgʻri yoritish.

Koʻzga zarar yetkazmaydigan, chayqalmas yorugʻlik manbalari.

Zamonaviy texnologiyalar

Smart yoritish tizimlari: telefon orqali boshqariladigan lampalar.

Energiya tejovchi LED chiroqlar

Yorugʻlik sensorlari va harakat datchiklari orqali avtomatik yoritish.

RGB chiroqlar yordamida turli rangli muhit yaratish.

Xulosa: Har bir xona uchun to‘g‘ri tanlangan yoritish – interyer dizaynining muhim elementi bo‘lib, insonning qulay yashashi, ishlashi va dam olishi uchun zarur shart-sharoit yaratadi. Zamonaviy yondashuvlar bilan yoritish tizimlari nafaqat funksional, balki estetik jihatdan ham mukammal bo‘lishi mumkin.

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NUR VA SOYA ARXITEKTURADAGI YORUG‘LIK DIZAYNI

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Annotatsiya: Yorug‘lik arxitektura dunyosida oddiy yoritish vositasi emas, balki fazoviy ifoda, ruhiy holat va estetik go‘zallikni ifodalovchi kuchli elementdir. Arxitekturadagi yorug‘lik dizayni inson kayfiyatiga, bino ichki muhitining energiyasiga, tashqi ko‘rinishning jozibasiga bevosita ta’sir ko‘rsatadi. Nur va soya o‘yini orqali binolar faqatgina ko‘rinmaydi, balki “nafas oladi”, harakatda va hayotda ko‘rinadi.

Kalit so‘zlar: yorug‘lik dizayni, tabiiy nur, soya, fazoviy muhit, arxitektura estetika, milliy uslub.

Arxitekturada yorug‘likning funksiyalari

1. Fazoni ajratish va boshqarish

Yorug‘lik yordamida me’morlar ichki makonni bo‘lish, urg‘u berish yoki yo‘naltirish imkoniyatiga ega bo‘ladi. Masalan, mehrob yoki gumbazga tushadigan tabiiy nur u joyning muqaddasligini anglatadi.

2. Estetik go‘zallik yaratish

Quyosh nurlari bilan o‘ynalgan soyalar, ravoq va girihlar orasidagi yorug‘lik akslari binoni uyg‘unlashtirib, o‘ziga xos ritm beradi. Buxorodagi Mir Arab madrasasida kunduzi ichkariga tushadigan yorug‘lik naqshlarni har daqiqada o‘zgartiradi.

3. Simvolik va ruhiy ifoda

Nur ko‘plab madaniyatlarda ilohiylik, poklik va haqiqat timsoli sifatida talqin qilinadi. Me’morlar binoni shunchaki yoritish emas, balki falsafiy tushuncha bilan “yoritishga” harakat qilishadi.

Yorug‘lik dizaynining zamonaviy arxitektura bilan uyg‘unligi

Zamonaviy arxitektura yorug‘likni nafaqat dekorativ, balki energiya tejamkorlik nuqtai nazaridan ham muhim deb biladi. Quyidagilar bu borada eng ilg‘or yondashuvlardir:

Yorug‘likni boshqaruvchi tizimlar (smart lighting) – kunning vaqtiga va foydalanuvchining harakatiga qarab o‘zgaruvchi yoritish.

Tashqi fasadlarda quyosh panellari bilan integratsiyalashgan yoritish tizimlari – energiyani tejash va tabiiy nurni maksimal darajada ichkariga kiritish.

Transparant materiallar – shisha, polikarbonat, zamonaviy oynalar yordamida ko‘p nurli va ochiq makonlar yaratiladi.

Mashhur obidalar va loyihalarda yorug‘lik yondashuvi

1. Tadao Ando (Yaponiya) – Imani Charchasining ibodatxonasi

Bu binoda yorug‘lik devordagi kesiklar orqali kirib, fazoga muqaddas holat baxsh etadi.

2. Louvre Abu Dhabi – muzey binosining gumbazidagi minglab yengil ochiqliklar orqali ichkariga tushgan quyosh nuri “nur yomg‘iri” effektini beradi.

3. Sheikh Zayed masjidi (BAA) – kun nurida oppoq toshlar porlaydi, tun yoritgichlar orqali masjidning shakli va naqshlari ohangdorlik bilan yoritiladi.

4. Samarqanddagi Hazrati Xizr masjidi – ichki ayvonlarda nur bilan naqshlar uyg‘unligi milliy uslubda jonli ifodalangan.

O‘zbekiston arxitekturasida yorug‘lik dizayni

O‘zbek me’morchiligida nur muhim o‘rin tutgan:

Ichki hovli tizimi – uylar markaziy ochiq hovli orqali tabiiy nur bilan ta’minlangan.

Ravon ravoqlar va derazalar – geometrik panjaralar orqali tushgan nur naqshli soyalar hosil qiladi.

Yog‘och ustunli ayvonlar – yarim soya ostidagi muhit odamga xotirjamlik baxsh etadi.

Bugungi kunda esa yangi loyiha va binolarda bunday an’anaviy yondashuvlar zamonaviy materiallar va texnologiyalar yordamida yangicha talqinda qo‘llanilmoqda.

Yorug‘lik arxitektura san’atining ruhidir. U orqali bino nafislik, ifoda va ma’naviy mazmun kasb etadi. Me’morlar uchun nur va soya o‘yini – bu dizayndagi eng nozik va kuchli vositadir. O‘zbekiston arxitekturasida ham bu borada boy tajribaga ega bo‘lib,

zamonaviy dizayn yondashuvlari bilan uyg'unlashganda milliy-estetik mukammallikka erishish mumkin.

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УДК : 514.18

**CHET TILINI BILISH - YOSH MUHANDIS UCHUN BARCHA
ESHIKLARNING KALITIDIR**

**ЗНАНИЕ ИНОСТРАННОГО ЯЗЫКА — КЛЮЧ КО ВСЕМ ДВЕРЯМ ДЛЯ
МОЛОДОГО ИНЖЕНЕРА**

**KNOWLEDGE OF A FOREIGN LANGUAGE IS THE KEY TO ALL DOORS
FOR A YOUNG ENGINEER**



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***Annotasiya:** Maqolada muhandislik grafikasida o'rganiladigan mavzu va masalalarni yechishda amaliy kompyuter grafik dasturlari imkoniyatlaridan foydalanish uchun xorijiy tillarni bilish muhimligi keltirilgan. Rus va ingliz tillarida o'rnatilgan grafik dasturlar misolida namuna bayon qilingan, bugungi globalashuv davrida chet tillarini, ayniqsa ingliz tilini bilish yosh muhandislar uchun qanday afzalliklar yaratishi yoritilgan. Muhandislik sohasida ilmiy-texnik axborotning asosiy qismi xorijiy tillarda bo'layotgani, xalqaro tajriba va ilg'or texnologiyalarni o'zlashtirishda til bilish muhim omil ekani ko'rsatib o'tilgan. Shuningdek, xorijiy kompaniyalarda ishlash, malaka oshirish, xalqaro loyihalarda ishtirok etish kabi imkoniyatlarga ega bo'lishda chet tilining o'rni alohida ta'kidlangan. Ishda til o'rganish bo'yicha amaliy tavsiyalar ham berilgan.*

Kalit s‘ozlar: ta’lim texnologiyalari; muhandislik grafikasi; xorijiy tillar, kompyuter grafik dasturi, taqqoslash; fazoviy tasavvur, yosh muhandis, globalizatsiya, texnologiya, ilmiy-texnik axborot, xalqaro tajriba, innovatsiya, ingliz tili, malaka oshirish, xorijiy tajriba, kasbiy rivojlanish.

Аннотация: В статье рассматривается важность знания иностранных языков для использования возможностей практических программ компьютерной графики при решении тем и задач, изучаемых по инженерной графике. Пример описан с использованием графических программ, установленных на русском и английском языках. В нем подчеркиваются преимущества, которые знание иностранных языков, особенно английского, создает для молодых инженеров в сегодняшнюю эпоху глобализации. Отмечено, что основная часть научно-технической информации в области машиностроения представлена на иностранных языках, а знание языков является важным фактором освоения международного опыта и передовых технологий. Также была подчеркнута роль иностранного языка в получении таких возможностей, как работа в иностранных компаниях, повышение ¹квалификации и участие в международных проектах. В работе также даны практические рекомендации по изучению языка.

Ключевые слова: образовательные технологии; инженерная графика; иностранные языки, программа компьютерной графики, сравнение; пространственное воображение, молодой инженер, глобализация, технологии, научно-техническая информация, международный опыт, инновации, английский язык, повышение квалификации, зарубежный опыт, профессиональное развитие.

Abstract: The article presents the importance of knowledge of foreign languages in order to use the capabilities of practical computer graphics programs in solving topics and problems studied in engineering graphics. An example is given using the example of installed graphics programs in Russian and English. The article highlights the advantages that knowledge of foreign languages, especially English, creates for young engineers in today's era of globalization. It is shown that the main part of scientific and technical information in the field of engineering is in foreign languages, and that knowledge of languages is an important factor in mastering international experience and advanced technologies. The role of a foreign language in obtaining opportunities such as working in foreign companies, improving skills, and participating in international

projects is also emphasized. The work also provides practical recommendations for language learning.

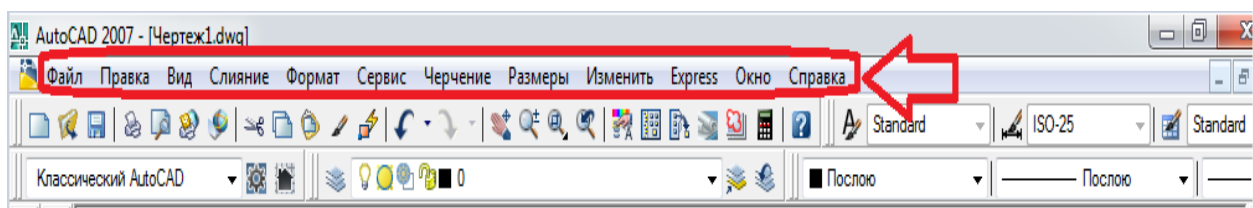
Keywords: educational technologies; engineering graphics; foreign languages, computer graphics program, comparison; spatial imagination. young engineer, globalization, technology, scientific and technical information, international experience, innovation, English language, advanced training, foreign experience, professional development.

Dunyoda tillar ko‘p, ayrim manbaalarda ta’kidlanishicha, jahon xalqlari 6700 dan ziyod tilda muloqot qilishadi. Hozirgi davrda asosan ularning ettita: **ingliz, rus, nemis, fransuz, xitoy**, ispan, hind tillari so‘zlashuvchilarining ko‘pligi jihatidan boshqa tillarga qaraganda er shari aholisi o‘rtasida ustunlik qilmoqda.

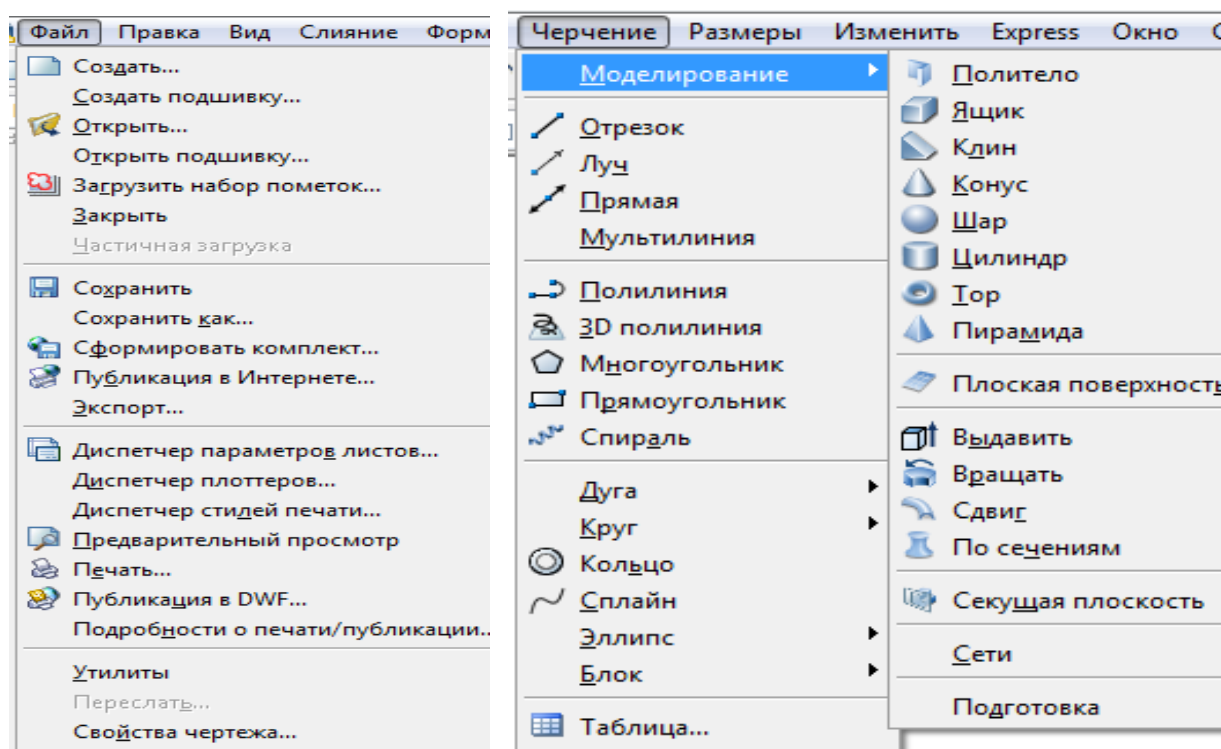
Masalan, buyuk qomusiy olim Abu Rayhon Beruniy 50 dan ortiq tilni bilgan. Shulardan 20 tasi "unutilgan tillar" sanalgan. Abu Nasr Farobiy o‘zlashtirgan tillarning miqdori 100 dan ortiq bo‘lgan va ularning 10 ga yaqini "unutilgan tillar" qatoriga kirgan. Dunyo tabobat ilmiga asos solgan olimlardan biri Abu Ali ibn Sino arab, fors, turk, lotin, so‘g‘d tillarida bimalol suhbatlasha olgan. Sohibqiron Amir Temur arab, fors, mo‘g‘ul, turkiy tillarni o‘ziga yarasha o‘zlashtirganligini tarixdan barchamizga ma’lum [1] [2]

Bugungi kunda yoshlarimizning hayotda o‘zlari tanlagan soha bo‘yicha muvaffaqiyatlarga erishishlari - bu albatta, o‘qish davrida Chet tillarni o‘rganishlariga bog‘liq. Chunki, muhandis bo‘lishlari uchun ham grafik dasturlarni o‘rganishlari zarur. Hozirgi kunda juda dolzarb bo‘lib kelayotgan o‘sha grafik dasturlar albatta, rus yoki ingliz tilidagi (versiyadagi) laridan foydalanamiz [3] [4]

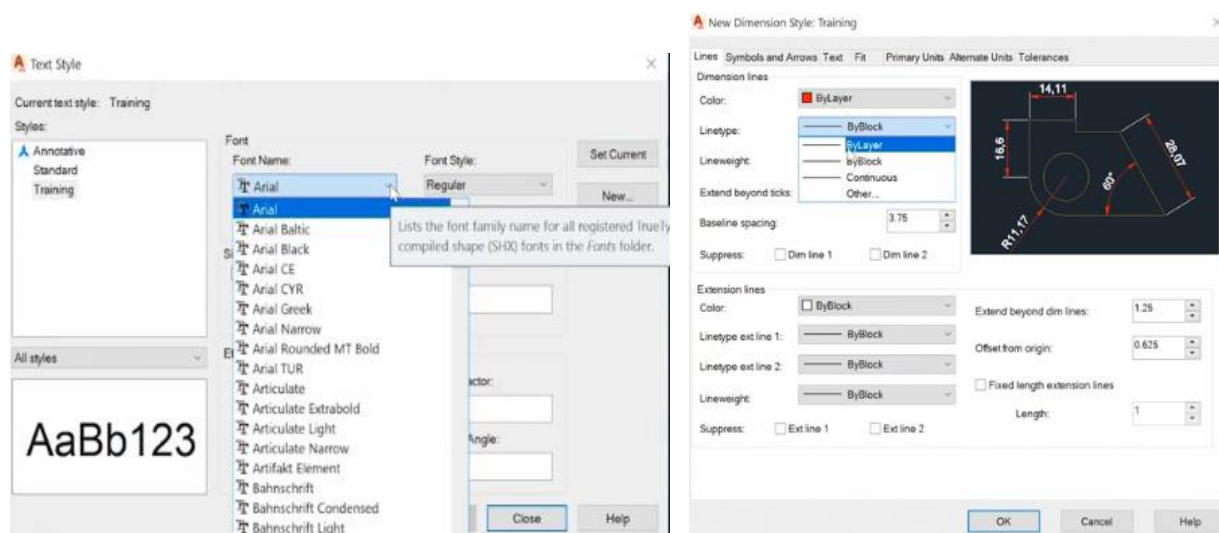
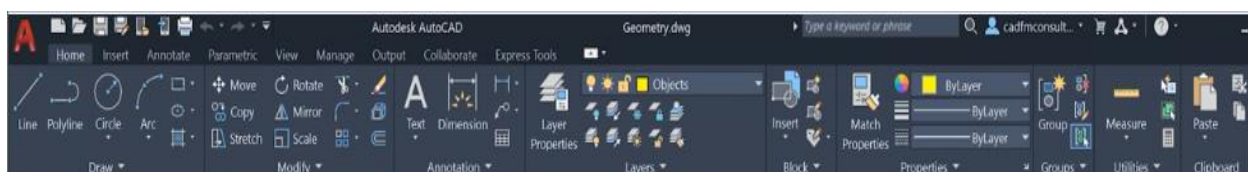
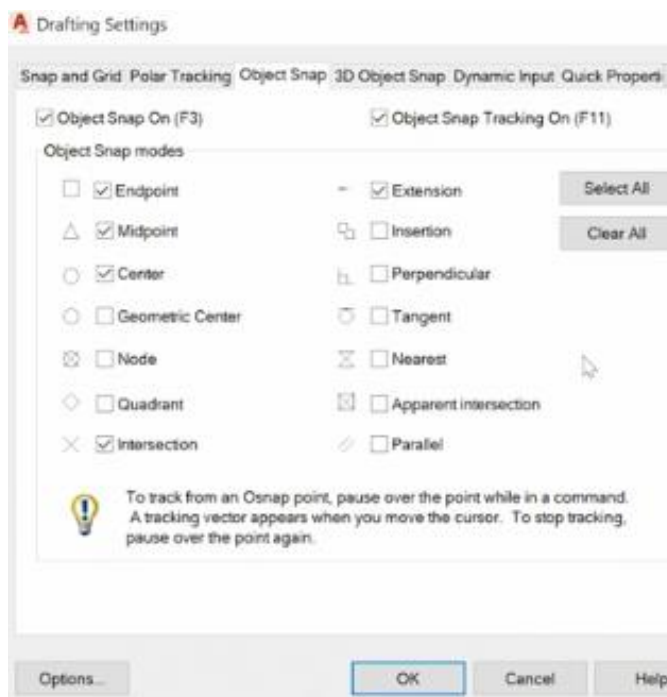
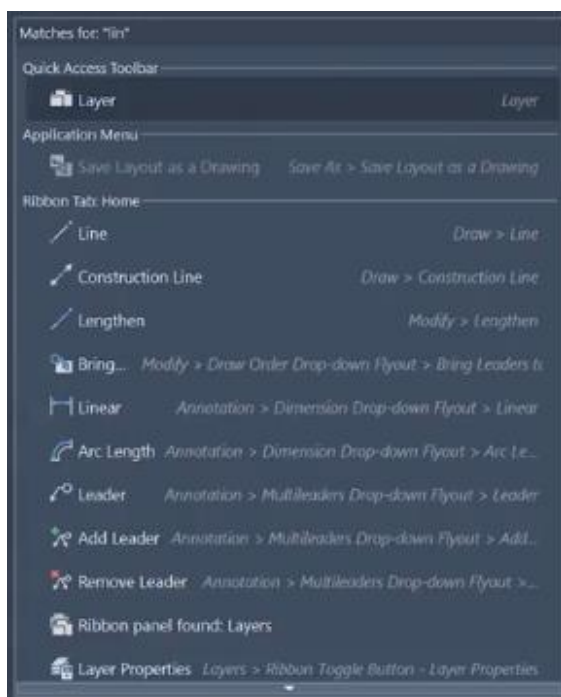
Endi bu dasturdan oqilona foydalanishimiz uchun esa, albatta rus yoki ingliz tillarni bilishimiz zarur. Chunki, bu dasturlarning menyulari va buyruqlar shu tillarda tuzilgan. Muhandislar ko‘p foydalanib kelayotgan ArchCAD, AutoCAD, 3dsMAX, Photoshop, Solidworks, Kompas grafik dasturlardan birini misol tariqasida ko‘radigan bo‘lsak,



Mana ko‘rinib turibdiki, AutoCAD dasturining rus tilidagisida Menyulari va menyu osti buyruqlari ham rus tilida berilgan. Dasturni mukammal o‘rganish va undan oqilona foydalanish uchun esa, albatta, rus tilini yaxshi bilishimizga tug‘ri keladi [5]; .



Fikrimiz to‘liq bo‘lishi uchun endi AutoCAD dasturini ingliz tilidagisini ham ko‘rib chiqamiz. Bunda ham menyular ingliz tilida, menyu osti buyruqlar va oynalardagi buyruqlar ham to‘liq ingliz tilida tuzilgan. Ya’ni, dasturdan to‘liq va oqilona foydalanishimiz uchun esa ingliz tilini yaxshi bilishimizga to‘g‘ri keladi. Buga o‘xshash misollarni ko‘plab keltirish mumkin. (Bugungi kun talabidagi barcha foydalanilayotgan zaruriy dasturiy vositalar) [6] [7] [8];



Ilm-fan, texnika va innovatsion texnologiyalardagi innovatsiyalar, kosmik sur'atlarda rivojlanib, xalqaro tillarda (rus, ingliz, nemis, xitoy va boshqalar) ishlaydi.

Inson faoliyatining turli sohalarida zamonaviy texnik vositalardan foydalanish Chet tillarini yaxshi bilishni talab qiladi. Zamonaviy texnik jihozlarning imkoniyatlaridan to‘liq va to‘g‘ri foydalanish uchun mutaxassis uskunani ishlatish tilini yaxshi bilishi kerak. [9][10][11]

Talabalarni Chet tillarni o‘rganishga undash o‘quv jarayonidagi birinchi qadamdir. Talabalar Chet tillarini bilishlari juda muhim ekanligini tushunishlari kerak. Chet elda o‘qishni yoki mamlakatdagi nufuzli tashkilotlarda ishlashni davom ettirish har bir talabadan o‘z kasbini yuqori darajada egallashini, shuningdek Chet tillarini bilishini talab qiladi [12] [13];

Texnik universitetlarda muayyan vaziyatlarda Chet tilidan foydalanish bilan bog‘liq bo‘lgan ijtimoiy ehtiyojlarga katta ahamiyat beriladi, xususan:

- Kasbiy harakatchanlik;
- Akademik harakatchanlik;
- Xorijiy hamkorlar bilan ishlash;
- Haqiqiy manbalardan ma’lumot olish;
- Chet tilidan tezkor foydalanishni talab qiladigan ishlab chiqarish vazifalarini hal qilish.

Til kompetensiyasi nuqtai nazaridan yaxshi muhandis – bu o‘z mutaxassisligi bo‘yicha kerakli adabiyotlarni o‘qishga imkon beradigan darajada tilni biladigan mutaxassis. Bundan ham yaxshiroq, agar muhandis muloqot qobiliyatiga ega bo‘lsa, unda uning kasbiy mahorati yuqori baholanadi.

Bundan tashqari, bunday mutaxassis turli xil professional vazifalarni hal qila oladi: hisobot yozish, Chet ellik hamkasblar bilan muloqot qilish, xalqaro seminarlarda qatnashish, turli xil hujjatlarni ishlab chiqish. Shunday qilib, zamonaviy dunyoda rus va ingliz tili nafaqat til universitetlari va gumanitar universitetlarda, balki texnik universitetlarda ham tahsil olayotgan talabalar orasida tobora ommalashib bormoqda [14] [15];

Demak, Siz bugundan til o‘rganishni boshladingiz va ertaga ko‘ptillilar bittaga ko‘paydi.

Xulosa

Bugungi globallashuv va texnologik taraqqiyot davrida chet tilini, ayniqsa ingliz tilini bilish yosh muhandis uchun nafaqat shaxsiy, balki kasbiy rivojlanishning muhim

omillaridan biriga aylangan. Zamonaviy muhandislik ilmi va amaliyotining asosiy qismi xorijiy adabiyotlarda, ilmiy maqolalarda va ilg'or texnologik dasturlarda aks etgan. Shuningdek, xalqaro loyihalarda ishtirok etish, xorijiy hamkorlar bilan muloqot qilish, zamonaviy dasturiy ta'minot va texnologiyalarni o'zlashtirish bevosita chet tilini bilishga bog'liq. Demak, chet tilini egallagan yosh muhandis o'z kasbiy salohiyatini oshiribgina qolmay, global mehnat bozorida ham raqobatbardosh bo'la oladi. Shu bois har bir muhandislik sohasi vakili uchun chet tilini o'rganish – kelajak sari ochiladigan imkoniyatlar eshigidir.

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SURXON VOHASIDA KASHTACHILIK SA’NATINING TARIXIGA NAZAR

Mamatova Fazilat Ixtiyorovna

Termiz davlat pedagogika instituti

Aniq va tabiiy fanlar fakulteti

Texnologiya va geografiya kafedrasi o’qituvchisi

Turdiyeva Shahzoda Eshdavlat qizi

Texnologiya ta’lim yo’nalishi talabasi

Annotatsiya

Mazkur ilmiy maqola Surxon vohasida kashtachilik san’ati tarixini, uning rivojlanish bosqichlarini va milliy hunarmandchilikdagi o’rnini o’rganishga bag’ishlangan. Tadqiqot davomida kashtachilik san’atining mahalliy an’analari, uslublari, rang-tasvir uyg’unligi hamda ularning madaniy-tarixiy ahamiyati tahlil qilinadi. Shu bilan birga, Surxon vohasida kashtachilik san’ati rivojlanishiga ta’sir ko’rsatgan omillar hamda hunarmandchilikning zamonaviy holati bo’yicha tavsiyalar berilgan.

Kalit so’zlar: kashtachilik, mato, mahsi, naqsh.

Абстрактный

Научная статья посвящена изучению истории искусства вышивки в Сурханском оазисе, этапам его развития и месту в народном художественном творчестве. В ходе исследования будут проанализированы местные традиции, стили, цветовая и образная гармония вышивки, а также их культурно-историческое значение. В то же время даются рекомендации относительно факторов, повлиявших на развитие искусства вышивки в Сурханском оазисе и современное состояние этого ремесла.

Ключевые слова: вышивка, ткань, махси, узор.

Abstract

This scientific article is devoted to studying the history of embroidery art in the Surkhan oasis, its stages of development and its place in national crafts. During the research, local traditions, styles, color-image harmony of embroidery art and their cultural and historical significance are analyzed. At the same time, recommendations are given on the factors that influenced the development of embroidery art in the Surkhan oasis and the modern state of the craft.

Keywords: embroidery, fabric, mahsi, pattern.

KIRISH:

O‘zbek milliy kashtachiligi amaliy san’atning eng qadimiy turlaridan bo‘lib, u xalqning ijtimoiy turmushini go‘zal qilish san’ati sifatida nafaqat mamlakatimizda, balki chet ellarda ham shuhrat qozongan. Surxon vohasida xalq ustalari tomonidan qo‘l mehnati bilan tikilgan so‘zana, zardevor, go‘lko‘rpa, choyshab kabilar. Bugungi kunda Germaniya, Fransiya, Belgiya, Yaponiya, AQSH, Hindiston, Afg‘oniston kabi xorijiy davlatlarning muzeylari ekspozitsiyalarida xalqimizning milliy kashtachilik bilan bog‘liq turli asori-atiqalari saqlanib kelinmoqda. Kashtachilik buyumlari o‘ziga xos go‘zallik va nafis bezaklarning rang-barangligi bilan kishilarni hayratlantirishi maqolada o‘z aksini topgan. Voha kashtachiligi uzoq tarixga ega. Buni arxeologik topilmalar, yozma manbalar va dala tadqiqotlarida olib borilgan kuzatuv ishlari ilmiy jihatdan isbotlab bermokda. Ma’lumki, o‘zbek kashtachiligi iqlim, tabiiy geografik sharoit va ijtimoiy muhit bilan bog‘liq holda barcha kasb-hunarlar bilan birgalikda rivojlanib kelingan bo‘lsa-da, ammo hozirgi sharoitda kasanachilik sohasida saqlanib kelinmoqda. Voha kashtachiligining o‘ziga xosligi shundaki, nafaqat iqlim, tabiiy sharoit, balki urug‘-qabila urf-odatlar, ananalari bilan ham bir-birini takrorlamasdan shakllanib kelmoqda. Vohada kashtachilik san’atining eng kadimiy namunasi saklanmagan. O‘rta Osiyoning XIV-XV asrlarga mansub miniatyuralar orqali biz vohada kashtachilik juda kadimdan rivojlanganligini ko‘rishimiz mumkin. Kamoliddin Behzod chizib qoldirgan bebaho miniatyura asarlarida ham otabobolarimizda kiyinish madaniyati yuksak bo‘lganini ifodalab bergan. Xolchayon yodgorligida (Surxondaryo viloyati, Denov tumani) qadimgi devoriy sur’atlar orqali hatto eramizdan avvalgi III-II asrlarda ham vatanimiz hududida mahalliy o‘ziga xos liboslar mavjud bo‘lganini kuzatamiz. Qolaversa, qadimdan O‘zbekiston Buyuk Ipak yo‘li orqali G‘arb va Sharqqa kiyim-kechak, bosh kiyimlari va oyoq kiyimlari uchun barcha iqlim va o‘lkalarga zarur bo‘lgan paxta, ipak, qorako‘l, momiq, oshlangan ko‘n va teri yetishtirib, yetkazib bergani bilan alohida ajralib turgan. Bu o‘zbek xalqining qadimdan yuksak did bilan kiyinish madaniyatiga ega xalqlardan biri bo‘lganini isbotlaydi. 1467-yili Kamoliddin Behzod “Zafarnoma” asari uchun “Temurtaxt” da miniatyurasidagi chodirga ishlangan kashtani o‘ziga xos ekanligi ham sur’atda aks etgan. XX asrning ikkinchi yarmidan tikish mashinasining ixtiro etilishi va keng yoyilishi sanoat korxonalarining kashtachilikka ixtisoslashuviga olib keldi. Tikish mashinasida kashtachilikning ko‘plab ishlab chiqarilishi, ularning sifat jihatdan badiiyligiga putur yetkazgan. Qo‘l kashtalari unutila boshlangan, lekin ayrim turlarigina ba’zi xonadonlarda saqlanib qolingan. XIV-XV asrlarga mansub tarixiy asarlar uchun ishlangan miniatyuralardagi personajlarning kiyimlari kashta gullari bilan

bezatilgani aniq aks etib turibdi. Shuningdek, Amir Temur saroyida bo‘lgan Ispan elchi Rui Gonsales de Klavixoning bergan malumotlari orkali xam usha davr kashtachiligi xakida kimmatali ma‘lumotga ega bulish munkin. Kashta (forscha: – chizilgan, tortilgan) – amaliy bezak san‘atining keng tarqalgan turi; igna bilan tikib tushirilgan gul, tasvir, naqsh. Kashta qo‘lda (igna, ilmoqli igna, shgaokli bigiz bilan) yoki mashinada, asosan, mato (bo‘z, chit, satin, shoyi, baxmal, movut va boshqalar) va charm (etik, mahsi, pichoq qini, kamar, ot jabduklari va boshqalar) ga tikiladi. Kashta mujassamotida o‘simliksimon naqshlar, handasiy shakllar, fazoviy jismlar, meva va hayvonlarning uslublashtirilgan tasvirlari, baytlar, hamda kishilarning qiyofalari, me‘moriy obidalarning ifodalari ham tasvirlanadi[2]. Kashta – bezak turi: qo‘lda yoki mashinada belbog‘, do‘ppi, gulko‘rpa, zardevor, palak, so‘zana, ko‘ylak, shuningdek kamar, mahsi va belbog‘cha tikiladi. Kashta tikuvchi hunarmand – kashtachi yoki kashtado‘z deb atalgan. Kashtachilik – kashta tikish kasbi. Amaliy bezak san‘atining keng tarqalgan qadimiy turi hisoblanadi. Kashta tikish san‘ati ko‘p asrlik tarixga egadir. Arxeologlarning ma‘lumotlariga qaraganda, IX-XII-asrlarga oid topilmalarida qadimgi Kiyev Rusi davlatida kashta bo‘lganligidan dalolat beradi. Bu topilmalar bezak gullari xamda zar iplardan tikilgan kiyim parchalari muzeylarda saqlanib kelinmoqda. Ilk o‘rta asrlarda uy-ro‘g‘gor buyumlarini va boy, zodagon kishilarning kiyimlarini zar tikib bezashgan. Kashta tikish san‘ati an‘analari muntazam rivojlana borgan. XIV-XVII asrlarda kiyimlarni, kundalik buyumlarni bezashda kashtachilik yanada keng qo‘llaniladigan bo‘lib qoldi. Zar va kumush iplarni dur va chaqmoq toshlari bilan qo‘shib cherkov liboslariga, podsho va boylarning qimmatbaho shoyi va baxmal kiyimlariga kashta tikar edilar. Rangli ipak va zar iplar bilan to‘y sochiqlari, erkaklarning zig‘ir toladan tikiladigan yupqa bayram ko‘ylaklarini, ro‘mollarini bezashadi. Kashta tikish, asosan boy xonadon a‘zolarining kiyimlariga bezak sifatida tikilgan. Kashta tikish san‘ati vohada asosan har-bir urug‘ qabilaning o‘z uslubi asosida shakllanib borgan. Agar tadqiqotda hududlar kesimida solishtirma nazar qaratsak. Har bir viloyat kashtalari bir-biridan buyum turlari, rangi, naqshi, choki (texnika uslubi), o‘lchami bilan farqlanadi. Nurota, Samarqand, Toshkentda bosma chok; Shahrisabz va Kitobda kandahayol va iroqi, Buxoroda yo‘rma choklar keng qo‘llaniladi[3]. Lekin ba‘zi buyumlarning o‘xshash tomonlari ham uchrab turadi. So‘zana, zardevor, joynamoz, choyshab, belboq kabi kashta buyumlari deyarli barcha viloyatlarda tikiladi. Oyna xalta, choy xalta, tuz xalta buyumlarini biz faqat Surxondaryo viloyatida kuzatamiz. Joynamozlarning tikilishi, asosan, bir xil, tarhi shoyi, satin matolardan, faqat naqshi (ularning nomlanishi), hajmi va ranglarida farqlanishi mumkin. Bo‘zga tikilgan joynamozlarni Qashqadaryo viloyatida uchratish mumkin. Ba‘zi joynamozlar choyshab

singari sernaqsh qilib tikilgan. XVIII asrdan boshlab, kashtachilik aholining barcha ijtimoiy qatlamlari hayotiga kirib borgan, ya'ni dexqon qizlarining ham asosiy ishlaridan bo'lib qolgan. Uy-ro'zg'or buyumlaridan sochiqlar, dasturxonlar, bayram va kundalik kiyimlar, peshbandlar, bosh kiyimlar va boshqa shu turdagi kashtalar bilan bezatilgan. Odatda, bu buyumlar oddiy, arzon materiallardan yuksak badiiy maxorat bilan tikilgan. Kashta tikish usullari gullari, ranglarining mujassamlanganligi avloddan-avlodga o'tib takomillashib borgan. Bir necha asrlar davomida eng yaxshi kashtalar tanlanib, milliy xususiyatlari bilan xarakterli, betakror kashta namunalari yaratilgan. Xalq ustalarining yuqori kasbiy mahorati bilan tikilgan kashtalari, bezak buyumlarining gullari, ranglarning bir-biriga mosligi, mutanosibliigi, bejirim usullarining aniqligi bilan ajralib turgan. Kashta tikilgan har qanday buyum, ma'lum bir azaliy vazifani bajarishiga to'g'ri kelgan. Mamlakatimiz muzeylarida xalq kashtachiligining ko'plab namunalari to'plangan. XIX asr kashtalari yaxshi saqlanib, shukungacha yetib keldi. Kashtalar dexqoncha va shaharcha turlarga ajratiladi. Shahar kashtalari ko'proq G'arb davlatlari uslubi ta'sirida bo'lganligi uchun turli xalqlarning kashtachilik uslublari o'zaro uyg'unlashgan yoki turli kashtachilik uslublari bo'lingan. Masalan, Rossiya davlatida xalq kashtachiligi rus dehqonlarining qadimiy urf-odatlariga va marosimlariga bog'liq bo'lgan. Kashta – bezak san'ati turi. Turli rangdagi ip igna, ilmoqli bigiz bilan turli matolar – trikotaj, charm, kigiz, kartonga qo'lda yoki mashinada gul – naqsh tasvir tikiladi. Kashta kiyimlar va buyumlarni bezashda hamda ro'zg'or bezak buyumlari tayyorlashda qadimdan qo'llanilgan. Kashta, ipak, paxta, jun, zig'ir, sun'iy tolalardan tayyorlangan iplar, shoyi, zar, sim, charmdan ensiz qilib tayyorlangan tasmalarni tikib, munchok, marjon, metall pulyacha (zanglamaydigan metallardan o'rtasi teshib ishlangan doira plastinkachalar), nodir va qimmatbaho toshlar, shishalardan ishlangan munchoqlar. Har bir xalqning kashtado'zligida qadimdan rivojlanib kelinayotgan o'zan'analari, badiiy uslublari mavjud. Bezak buyumlari (palak, so'zana, zardevor va shu kabilar), kiyimlar, kichik buyumlar (dastro'mol, hamyon kabilar) ning o'zlariga munosib kashta gullari va shu kashtalarning tikilishi, usul va uslublari mavjud[4]. O'zbek kashtado'zligi kabi voha kashtado'zligi ham asrlar mobaynida boyigan, rivoj topgan. Voha kashtachilik namunalari fors-tojik, qozoq, qirg'iz, turkman, afg'on, hind, xitoy, rus kashtado'zlarining kashta usul va uslublari uchraydi. Voha kashtalarida geometrik shakllar, o'simliksimon naqsh gullari bilan birgalikda ma'lum bir oila, urug'-qabila va ulusning ramzi va choravachilik bilan shug'ullanadigan ko'chmanchi aholida hayvonot olami tasvirlari ham ramziy ma'noda o'rin olganligi ko'p ko'zga tashlanadi. Ma'lumki qozoq, qirg'iz naqshlarida mollarning shoxini eslatadigan elementlar, rus kashtalarida geometrik shakllar, o'simliksimon gullar bilan bir qatorda qushlar,

mevalarning tasvirlari ko‘zga tashlanganidek. O‘zbekcha kashtachiligining iroqi usubiga yaqin bulgan krest hosil kiladigan kashta xili keng tarkalgan. O‘rta Osiyoda kashtachilikning bezak buyumlarining tarqalishi, bu har bir oilada ayollarning kashta tikishni bilishi kerak bo‘lgan. Shuning uchun ham har bir oila o‘zi uchun kirpech, so‘zana, dorpech, oynaxalta, choyxalta va boshkalarni tayyorlagan. Bezak buyumlarining turi ko‘payib borgan sari, kundalik va ijtimoiy hayotda ishlatiladigan buyumlarning turlari ham oshib borgan. Masalan, so‘zana, palak, choyshab, oyxalta, choy xalta, zardevor, palak, gul-ko‘rpa dorpech, bo‘g‘joma, parda, belbog‘, taqyapo‘sh (yostiqlik ustiga yopiladigan), do‘ppi, ko‘ylak, dastro‘mol, hamyon, joynamoz, nimcha, mahsi-kavush, xaltacha va boshqalar badiiy did bilan bezatilgan. O‘tmishda bu kashtalar oq va malla matolarga tikilgan. Keyinchalik satin, shoyi baxmalga tikiladigan bo‘lgan. Kashtachilikda ishlatiladigan bezak buyum turlari bilan tanishib chikamiz. Do‘ppi – O‘zbekistonda keng tarqalgan yengil bosh kiyim. Do‘ppi kiyish dastlab, Eronda va turkiy xalqlar o‘rtasida rasm bo‘lgan. Asrlar davomida do‘ppining turli xillari paydo bo‘lgan. Baxmal, satin, sidirg‘a shoyiga ip, ipak va zar bilan do‘ppi gullari tikilgan. O‘zbekistonda, Toshkent, Chust, Buxoro, Samarqand, Boysun, Shahrisabz do‘ppilari mashhur bo‘lib, ular o‘ziga xosdir. Mamlakatimizning barcha viloyatlarida do‘ppi tikilgan. Uning Iroki, Chust do‘ppi, gilam do‘ppi, chakma tur, qizil gul, piltado‘zi, zardo‘ppi, to‘ldirma deb nomlanadigan milliy do‘ppilar bor. Har bir do‘ppi yaratilish uslubiga ega bo‘lib, ular bir-biridan farq qilgan. Boysunda asosan – sharsimon do‘ppi, uni asosan keksalar kiyishgan, ushbu do‘ppilar gullari va tikilish uslublariga qarab ayollar, qizlar va yigitlarni do‘ppi turlariga bo‘lingan. Toshkentda sharsimon do‘ppilar kanda xayol, bosma, chakmator, iroqi chok usullarida tikiladi. Tus do‘ppi – keng tarqalgan yassi yuzali do‘ppi. Ko‘pincha tus do‘ppi chust do‘ppi deb yuritiladi. Tus do‘ppilarning birgina klassik variantining o‘zida sakkizta chok uslubi qo‘llaniladi. Masalan, zanjir, to‘g‘ri chok, chita, kungura, yetalatma, taroq, oba, pildiroq. Chust do‘ppisining tepasi kvadrat shaklida bo‘rtib chiqib, yarim shar ko‘rinishida bo‘ladi. Toshkent do‘ppisi sidirg‘a baxmaldan (gulsiz) tikilgan. Buxoro do‘ppilari sidirg‘a yoki gulli baxmaldan jiyakli qilib tikilgan, jiyagi turli xil ipaklardan rangdor naqshli yo‘rma usulida tikilgan bo‘ladi[5]. Joynamoz – yerga solib ustida namoz o‘qiydigan to‘shama. Joynamoz har xil matodan tayyorlanib, uning uch tomoni mehrob shaklida tikilgan bo‘ladi. Undan machit, madrasa va uylarda foydalaniladi. U turli o‘lchamda bo‘ladi. Joynamoz kashtachilikda juda chiroyli qilib bezatiladi. Zardevor – uy jihozi, u sidirga shoyi baxmal, satinga kashta tikib bezatilgan badiiy buyum. Zardevor yangi tushgan kelinning uyiga, shiftiga yoki devoriga ilib qo‘yiladi. U zar ip yoki ipak gajimli bo‘lib, eni 40 - 70 smga mo‘ljallangan va uyning devoriga moslab tikiladi. Palak - devorlarga

ilinib, eng qimmat bezak buyumlaridan biri. Palakda osmon va tulin oy aks ettirilgan. Uni qadimda oq yoki malla boʻzga kashta tikib tayyorlashgan. U soʻzanadan gullarining yirikligi, zaminga ham kashta koplanishi bilan fark kilgan. Palakni oʻrtasida yirik oy tasviri qizil qirmizi, pushti ipak bilan kashtalangan va atrofiga juda chiroyli qilib oʻsimliksimon naqshlar tikilgan. Naqshlar ichida koʻpincha bodom, qalampir elementlari qoʻllanilgan. Palakda qirqtacha oy ham tasvirlash mumkin, shuning uchun oyni soniga karab, olti oyli palak, oʻn ikki oyli palak, hattoki katta uylar uchun qirq oyli palak tikilgani bizga maʼlum. Oylar turli ranglar bilan bir necha xil tasvirlangan. Mashhur kashtadoʻzlar baʼzida oyni ajoyib naqshlar bilan bezab, oʻz mahoratlarini namoyish etganlar. Agar oyni ichida sidirgʻa rangda ifodalangan boʻlsa, uni, oypalak, agar naqshli boʻlsa gulpalak va hokazo nomlar bilan yuritiladi. Keyingi vaqtlarda palakni qoʻl mehnati koʻp boʻlgani uchun soʻzana deyila boshlangan. Lekin, hozirgi kunda palakni qoʻlda tikishga katta ahamiyat berilmoqda. Kirpech - tokchaga taxlab qoʻyilgan kiyimkechak ustidan yoki devorning boʻsh joylariga ilib, uyni bezatib turish uchun ishlatiladigan badiiy buyum. Kirpech kashtalari qoʻlda yoki mashinada tikilgan. Kirpech qoʻlda ilma kashta bilan bezaladi. U kiyim-kechakni changdan saqlaydi va uyni bezab turadi. Odatda, palakka oʻxshatib tikilgani kirpechpalak deb yuritilgan. Bu turi ham keng ishlatilgan. Soʻzana (fors. – igna bilan tikilgan) – mashina yoki qoʻlda matoga kashta tikib tayyorlanadigan badiiy buyum. Ip gazlama, shoyi, baxmal kabi sidirgʻa matolarga turli choklar (bosma, yoʻrma, popop)da kashta tikiladi. Kashta zamini sifatida mato rangi Soʻzana rang-baranglik hosil qilishda muhim rol oʻynashi bilan palaksan farq qiladi. Naqsh majmuasining markaziy maydoni (aylana gul va b.) va hoshiya (takrorlanuvchi 1-2 naqsh boʻlagi)dan tuzilgan toʻrtburchak, murabba shaklga ega boʻlib, asosan, oʻsimliksimon (baʼzan tasvirli, syujetli) naqsh gullardan iborat. Naqsh majmuasining asosiy chiziklari taxta yordamida matoga tushiriladi. Soʻzananing badiiyligi, nafosati chevarning mahorati, uning ijodiy didi bilan belgilanadi. Ayniqsa, zardoʻzlikdz. tayyorlanadigan Soʻzanalar jilosi, jozibasi bilan ajralib turadi. Soʻzana odatda, xonani bezatish uchun devorga osiladi (ayrim mintaqalarda kelinkuyovlarning oʻrni ustiga yopiladi) [6]. Suzana (XIX-asr oxiri, Shaxrisabz). Oʻzbekiston va Tojikiston hududida qadimdan keng tarqalgan. Samarqand, Buxoro, Toshkent, Shaxrisabz va Boysun va boshqa hududlarda oʻziga xos tarzda tayyorlangan Soʻzanalar kashtasi, naqshi, rangi jihatdan xilmaxil boʻlib, ulardan namunalar respublika va xorijiy mamlakatlar muzeylarida, xususiy toʻplamlarda saqlanadi. XX asrning 20-30-yillarida Soʻzananing asosiy mujassamoti shakllandi (hoshiya ingichkalashdi, gullar yetakchi oʻrinni egalladi) ,40-yillardan mashina kashtadoʻzligining rivojlanishi bilan Soʻzana kashtalari mashinada ham tikila boshlandi, mavzuli, tasvirli Soʻzana mujassamotlari

yuzaga keldi. XX asr oxiriga kelib O'zbekiston mustaqilligi (1991) dan keyin amaliy bezak san'atining barcha sohalarida bo'lganidek, kashtado'zlik (jumladan, uning So'zana turi) ham jadal rivojlandi, So'zana uchun mato va kashtalar uchun iplar tayyorlash keng yo'lga qo'yildi. Bunda Buxoro (3. A'loberdiyeva, 3. Obloqulova va b.), Surxondaryo (A. Xolyorova va b.), Samarqand (S. Rahmatullayeva, M. Haydarova va b.), Toshkent (I.Davlatov, Z.Fayzullayeva va b.), Qashqadaryo (3. Hamidova va b.) kabi So'zana tayyorlash markazlarining hissasi katta. Zamonaviy mujassamotli, nafis koloritli, serjilo, rangbarang So'zanalar yaratilmoqda, ular xalqaro ko'rgazmalar (AQSh, Fransiya, Italiya va b.)da namoyish etiladi, muzey va xususiy to'plamlarda saqlanadi. So'zana – igna bilan tikilgan degan ma'noni beradi. So'zana matoga kashta tikib tayyorlangan badiiy buyum bo'lib, xonani bezatish uchun devorga ilib qo'yiladi. U satin, baxmal, shoyi va boshqa matolarga kashta tikib tayyorlanadi. U o'ziga xos badiiy ko'rinishga ega. Matoning rangidan ustalarimiz kashta zamini sifatida foydalanadilar. Shuning uchun u palakdan fark kiladi. Suzana xar bir xonadonda bulgan, chunki har bir qiz turmushga chikishidan oldin o'zi uchun so'zana tayyorlagan. So'zana kelinlarning sepi hisoblangan. Kambag'al oilada so'zanani malla, ok bo'zdan, badavlatroqlarida esa shoyidan, baxmaldan tikishgan. So'zana uchun kompozitsion joylashgan o'simliksimon naqshlardan foydalanilgan. So'zana o'rtasida ko'pincha doirasimon gul tikilib, atrofi guldor islimiy naqshlar bilan bezatiladi. So'zana tikish juda qadimdan rivojlangan, lekin XIX asrgacha bo'lgan suzanalar saqlanmagan. Faqat XIX asrga oid Samarqand, Buxoro, Nurota, Farg'ona, O'ratepa, Shahrisabz, Toshkent va boshqa joylardagi so'zana turlaridan namunalar bor. San'atning bu turi ayniqsa, O'zbekiston hududida qadimdan keng tarqalgan. Keyingi paytlarda so'zana mashinada tikilib kelinmokda. Choyshab - forschatojikcha ruyjotun chodiri degan ma'noni bildiradi. Choyshab, asosan taxmonga tutish, yotganda yopinish uchun to'shak ustidan to'shaladi. To'shak ustidan yopiladigan choyshab ham kashtali oq surp, taxmonga tutiladigan satin, shoyi, baxmal va boshqalardan tikiladi. Hozirgi vaktda choyshabdan so'zana kabi badiiy buyum sifatida ham foydalanib kelinmoqda. Kashta turli rangdagi ipak, mulina, zar ip bilan igna, ilmoqli bigizda har xil matoga mashinada gul tikishgan. Kashta har xil kiyimlarga, ro'zg'or buyumlarga tikiladi. Kashtachilikda mato, kigiz, charm, karton, zig'ir, jun, sun'iy iplar, zar iplar, mayin sim, xom charmdan tayyorlangan tasmalar, munchoq, marjon, qimmatbaho tabiiy va sun'iy toshlar, shishadan tayyorlangan munchoqlar va boshqa materiallar ishlatiladi. Kashtachilikda o'ziga xos ish qurollari mavjud bo'lib, ular o'ziga xos vazifani bajaradi. Kashtachilikda ignalar, ilmoqli va ilmoqsiz bigizlar, to'g'nag'ich, angishvona qaychi hamda chambaraklar ishlatiladi. Chambarak asosan yog'ochdan yasaladi, u doira, kvadrat, to'g'ri

to'rtburchak shaklida bo'ladi. Kichik kashtalarga doira chambarak ishlatiladi, chunki u qulaydir. Hamma kashtalarga ham chambarak ishlatilavermaydi. Ip va igna kashta tikiladigan matolar kalinligiga mos qilib tanlanadi[7]. Kashtachilikda yogoch dastali ikki xil, ya'ni ilmoqli va ilmoqsiz bigizlar ishlatilgan. Ayrim materiallarga, masalan, charm va kartonga qiynalmasdan tikish uchun ilmoqsiz bigizlar ishlatiladi. Naqshlar uchun o'tkir uchli 10-12 sm uzunlikdagi qaychilar ishlatiladi. Tikish qulay bo'lishi uchun katim 50-60 sm dan uzun bo'lmasligi lozim, kashta chambarakda tikilsa angishvona ko'llanilmaydi. Naqsh nusxasi turli materiallarga har xil yullar bilan tushiriladi. Masalan, nusxa ko'chiriladigan qog'ozlar taxta, yorug'lik yordamida material ustidan buklab chiqiladi, keyin bu qog'ozlar yirtib olinadi. Kashtaga iplar rangini moslab tanlash kashtado'zdan katta mahorat hamda did talab qilgan. To'g'ri tanlangan ip kashtaning jozibador chiqishiga sabab bo'lgan. Qo'lda kashta tikishning ikki turi mavjud: birinchisi matoning arqon hamda o'rim iplarini sanab kashta tikish, ikkinchisi, matoga gul tasvirini chizib, erkin kashta tikish. Arqon o'rim iplari kesishtirilib, polotno yoki bo'z shaklida to'qilgan matolarga tikiladi. Buning sababi kashta tikishda mato iplarini sanab tikishga qulaydir. Sanama kashta turi O'zbekistonda keng tarqalgan. Erkin kashta mato tanlamaydi, tushirilgan tasvir chiziqlari asosida tikiladi. O'zbek kashtachiligida yo'rma, ilma, iroqi, bosma, xomduzi, chamak, chipta xayol, bahya choklar keng tarkalgan. Badiiy kashtalarda turli joydan turli choklar ishlatiladi. Chunonchi, Shahrisabzda yo'rma, qandaxayol, iroqi, Toshkentda ko'proq bosma choki, Buxoro, Nurota, Samarqandda yo'rma choki bilan tikiladi.

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BOLALARDA TANQISLIK ANEMIYALARI (TEMIR, OQSIL, VITAMINLAR YETISHMOVCHILIGI) ETIOLOGIYASI

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Annotatsiya: Ushbu maqolada bolalar orasida keng tarqalgan tanqislik anemiyalarining — temir, oqsil va vitaminlar yetishmovchiligi bilan bog‘liq holatlarning etiologiyasi yoritilgan. Anemiyaning bolalar salomatligiga salbiy ta’siri, uning rivojlanish omillari, xavf guruhlari va kasallikning oldini olish yo‘llari tahlil qilingan. Tadqiqotda bolalarda uchraydigan anemiya turlari va ularning yuzaga kelishiga sabab bo‘luvchi omillar haqida tibbiy-nazariy asoslar bilan bir qatorda amaliy tavsiyalar ham berilgan. Mazkur maqola pediatrlar, umumiy amaliyot shifokorlari va tibbiyot yo‘nalishidagi talabalar uchun foydali manba bo‘lib xizmat qiladi.

Kalit so‘zlar: bolalarda anemiya, temir tanqisligi, oqsil yetishmovchiligi, vitamin yetishmovchiligi, tanqislik anemiyalari, anemiya etiologiyasi, bolalar salomatligi, profilaktik chora-tadbirlar, oziqlanish muammolari, pediatriyada anemiya.

Kirish.

Bugungi kunda bolalar salomatligi muammolari orasida anemiya, xususan, tanqislik anemiyalari muhim o‘rin egallaydi. Tanqislik anemiyasi deganda organizmda gemoglobin miqdorining kamayishi va shu bilan birga temir, oqsil hamda ayrim vitaminlar (ayniqsa B12 va foliy kislotasi) yetishmovchiligi natijasida yuzaga keladigan holat tushuniladi. Bolalik davri organizmning faol o‘sish va rivojlanish bosqichi bo‘lgani sababli, bu davrda zarur bo‘lgan oziq moddalarning yetarli miqdorda bo‘lmasligi turli kasalliklarning, xususan, anemiyaning rivojlanishiga sabab bo‘ladi. Tanqislik anemiyalari bolalarda umumiy immunitetning pasayishi, aqliy va jismoniy rivojlanishning susayishi, asab tizimi faoliyatining buzilishi kabi salbiy oqibatlarga olib keladi. Ayniqsa, erta yoshdagi bolalarda anemiya og‘ir kechadi va uzoq muddatli asoratlarga sabab bo‘lishi mumkin. Shu sababli bu kasallikning etiologiyasini chuqur o‘rganish, uning oldini olish, erta tashxislash va samarali davolash choralarini ishlab

chiqish dolzarb vazifalardan biridir. Ushbu maqolada bolalarda uchraydigan tanqislik anemiyalarining asosiy sabablari, ularning kelib chiqish mexanizmlari hamda profilaktika va davolashning zamonaviy yondashuvlari yoritib beriladi.

Asosiy qism.

Tanqislik anemiyalari bolalarda uchraydigan eng ko‘p tarqalgan qon kasalliklaridan biridir. Ular asosan temir, oqsil va vitaminlar kabi hayotiy muhim moddalarning yetishmovchiligi natijasida yuzaga keladi. Bu moddalarning organizmdagi o‘rni beqiyos bo‘lib, ularning tanqisligi qon hosil bo‘lish jarayonining izdan chiqishiga olib keladi. Har bir moddaning tanqisligi o‘ziga xos klinik ko‘rinishlarga va oqibatlariga ega bo‘lganligi sababli ularni alohida-alohida ko‘rib chiqish zarur.

1. Temir tanqisligi anemiyasi

Temir tanqisligi anemiyasi bolalarda eng ko‘p uchraydigan tanqislik anemiyasi turi hisoblanadi. Temir gemoglobin tarkibidagi asosiy element bo‘lib, kislorodning to‘qimalarga yetkazilishida muhim rol o‘ynaydi. Bola organizmi o‘sib borayotgani sababli, u doimiy ravishda temirga ehtiyoj sezadi. Temir tanqisligining asosiy sabablari quyidagilar:

- Yetarli va to‘g‘ri ovqatlanmaslik (ayniqsa hayvoniy mahsulotlarni kam iste‘mol qilish);
- Chaqaloqlik davrida onaning kamqonligi yoki chaqaloqni faqat ona suti bilan uzoq vaqt boqish;
- Me‘da-ichak kasalliklari natijasida temirning yomon so‘rilishi;
- Parazit infeksiyalar (askaridoz, giardioz va boshqalar) tufayli temirning yo‘qotilishi. Temir tanqisligi anemiyasi sekin-asta rivojlanadi. Bolalarda rangparlik, tez charchash, ishtahaning pasayishi, jismoniy va aqliy faollikning susayishi kuzatiladi. Davolashda temir preparatlari bilan birga temirga boy oziq-ovqat mahsulotlarini iste‘mol qilish tavsiya etiladi.

2. Oqsil yetishmovchiligi bilan bog‘liq anemiya. Oqsil organizmda hujayra tuzilishi va gemoglobinning sintezi uchun zarur bo‘lgan asosiy moddalardan biridir. Bola organizmda oqsil yetishmovchiligi kuzatilganda, eritrotsitlar soni kamayadi va gemoglobin darajasi pasayadi. Bu turdagi anemiya ko‘pincha umumiy distrofik holatlar bilan kechadi.

Oqsil yetishmovchiligi quyidagi omillar ta‘sirida rivojlanadi:

- Yomon ovqatlanish va balansi buzilgan dieta;
- Ovqat hazm qilish a'zolarining kasalliklari;
- Surunkali infeksiyalar.

Klinik belgilar temir tanqisligi anemiyasiga o'xshash bo'lsa-da, bu holatda bolalarda mushaklar zaifligi, o'sishning sekinlashuvi, umumiy immunitetning tushib ketishi bilan birga yurak faoliyatining buzilishi ham kuzatiladi. Davolash oqsilga boy ovqatlar (go'sht, sut mahsulotlari, tuxum, dukkaklilar) bilan birga oqsil preparatlari qo'llanilishi orqali olib boriladi.

3. Vitamin yetishmovchiligi (B12 va foliy kislotasi) Vitamin B12 va foliy kislotasi megaloblast anemiyasining rivojlanishida muhim rol o'ynaydi. Ushbu vitaminlar DNK sintezi va eritrotsitlarning shakllanishida ishtirok etadi. Ularning yetishmovchiligi natijasida katta, ammo funktsional jihatdan to'liq bo'lmagan eritrotsitlar hosil bo'ladi.

B12 vitamini yetishmovchiligining sabablari:

- Vegetarian ovqatlanish (hayvoniy mahsulotlardan voz kechish);
- Ichaklarning so'rish funksiyasining buzilishi (masalan, seliakiyadek kasalliklar);
- Autoimmun gastrit.

Foliy kislotasi esa ko'pincha yomon ovqatlanish, homiladorlik davrida yetarlicha qabul qilinmaganligi sababli bola tanasida yetishmovchilik bilan namoyon bo'ladi. Ushbu vitaminlar tanqisligi bilan bog'liq anemiyalar og'ir kechishi, asab tizimi buzilishlari, hushyorlikning pasayishi, koordinatsiya muammolari kabi klinik belgilar bilan namoyon bo'ladi. Davolashda B12 vitamini in'eksion shaklda, foliy kislotasi esa og'zaki tarzda beriladi.

4. Anemiyaning oldini olish va profilaktikasi. Bolalarda tanqislik anemiyalarining oldini olish uchun quyidagi choralar muhim ahamiyatga ega:

- Bolani to'g'ri va muvozanatli ovqatlantirish (temir, oqsil va vitaminlarga boy mahsulotlar bilan);
- Onalarni homiladorlik davridan boshlab temir va foliy kislotasi preparatlari bilan ta'minlash;
- Yuqori xavf guruhiga kiruvchi bolalarni (erta tug'ilganlar, ko'p kasallanuvchan bolalar) muntazam tibbiy nazoratda saqlash;

– Ichki kasalliklar va parazit infeksiyalarni vaqtida davolash.

Xulosa:

Bolalarda tanqislik anemiyalari — bu temir, oqsil va vitaminlar (ayniqsa B12 va foliy kislotasi) yetishmovchiligi natijasida yuzaga keladigan, organizmning umumiy rivojlanishiga salbiy ta'sir ko'rsatuvchi jiddiy patologiyalardan biridir. Bu turdagi anemiyalar bolaning jismoniy, aqliy va emotsional rivojlanishini izdan chiqaradi, immunitetni pasaytiradi va turli asoratlarga olib keladi. Temir tanqisligi anemiyasi eng ko'p uchraydigan shakl bo'lib, uni erta aniqlash va davolash bolalar sog'lig'ini saqlashda muhim ahamiyat kasb etadi. Anemiyaning asosiy sabablari noto'g'ri ovqatlanish, surunkali kasalliklar, ichakda so'rilish buzilishlari va parazitlar kasalliklar bilan bog'liq. Shuning uchun kasallikni davolash bilan birga uning oldini olish choralari — to'g'ri ovqatlanishni tashkil etish, vitamin va mikroelementlarga boy mahsulotlarni ratsionga kiritish, bolalarni doimiy tibbiy ko'rikdan o'tkazish muhimdir. Ushbu masalaga bo'lgan dolzarb yondashuv, ayniqsa pediatrlar va oilaviy shifokorlar tomonidan bolalarda anemiyaning erta aniqlash va samarali davolashda muhim rol o'ynaydi.

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THE IMPORTANCE OF USING THE COMMUNICATIVE LANGUAGE TEACHING (CLT) APPROACH IN ENHANCING SPEAKING SKILL

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Abstract: In modern language education, the ability to speak fluently and effectively in real-life situations has become a primary goal. The Communicative Language Teaching (CLT) approach has emerged as a dominant paradigm for developing speaking skills in second and foreign language learners. Unlike traditional approaches that emphasize grammar and rote memorization, CLT prioritizes the functional use of language and encourages authentic communication. This article explores the theoretical foundations of CLT, its principles, and how it is implemented in teaching speaking skills. The paper also highlights the benefits and challenges of the CLT approach, outlines various classroom strategies, and discusses assessment techniques aligned with communicative objectives. The conclusion emphasizes the need for integrating fluency, accuracy, and meaningful interaction to cultivate effective and confident speakers in the target language.

Keywords: Communicative Language Teaching, CLT, speaking skills, language teaching, second language acquisition, fluency, interaction, task-based learning, real-life communication, learner-centered approach

Introduction

In today's globalized world, speaking is regarded as one of the most essential skills in language learning. Learners are expected not only to understand the rules of grammar but also to express themselves effectively and appropriately in real-time communication. The

Communicative Language Teaching (CLT) approach has been widely adopted to meet this demand. CLT is based on the idea that the primary function of language is communication, and it emphasizes learning to use language through interaction. This paper investigates how CLT enhances speaking skills, focusing on its core principles, classroom practices, and its impact on learner engagement and communicative competence.

Theoretical Background of CLT

CLT evolved as a response to the limitations of traditional grammar-translation and audio-lingual methods, which focused more on memorization and less on real communication. Influenced by sociolinguists such as Dell Hymes, who introduced the concept of communicative competence, CLT aims to equip learners not just with grammatical knowledge but with the ability to use language appropriately in different contexts.

Key theoretical influences include:

- Dell Hymes' Communicative Competence (1972)
- Canale and Swain's (1980) model: grammatical, sociolinguistic, discourse, and strategic competence
- Vygotsky's social interactionist theory, emphasizing the role of social interaction in learning

Principles of CLT in Teaching Speaking

CLT is grounded in several core principles that guide the teaching of speaking skills:

1. Communication is the goal of language learning
2. Learners must be able to communicate meaningfully, not just accurately.
3. Meaning over form
4. Focus is on understanding and expressing messages, even if minor grammatical errors occur.
5. Authentic communication
6. Activities should reflect real-world communication (e.g., debates, interviews, negotiations).
7. Learner-centered instruction Students take an active role in learning; teachers serve as facilitators.

8. Interaction-based learning Speaking is developed through interaction—pair work, group work, and role-plays.

Classroom Techniques and Activities in CLT

CLT employs a variety of interactive, task-based, and functional speaking activities:

Role-plays and Simulations

Students act out scenarios like ordering food, visiting a doctor, or booking a hotel.

Information-Gap Activities

Learners are given different pieces of information and must communicate to complete a task (e.g., map completion, schedule planning).

Problem-Solving Tasks

Students collaborate to find solutions to problems, encouraging negotiation of meaning.

Discussions and Debates

Promote fluency and critical thinking through opinion sharing and argumentation.

Interviews and Surveys

Encourage questioning, answering, and spontaneous interaction.

Storytelling and Presentations

Allow learners to speak at length using organized, structured language.

These activities provide comprehensible input and opportunities for output, which are both essential for speaking development.

Benefits of CLT in Speaking Instruction

- Improves fluency and confidence Students gain confidence through constant practice in speaking real language.
- Promotes motivation Authentic tasks are engaging and relevant to learners' lives.

- Develops functional and strategic competence learners develop strategies for expressing themselves even with limited language.
- Enhances social and cultural awareness students learn how to adapt language use in different contexts and cultures.
- Encourages learner autonomy learners take more responsibility for their communication.

Challenges in Implementing CLT

While CLT offers numerous benefits, its implementation is not without challenges:

- Lack of teacher training
- Many teachers lack the training to design and manage communicative classrooms.
- Large class sizes CLT requires interaction, which is harder to manage in overcrowded classes.
- Assessment difficulties traditional grammar-based tests do not align with CLT goals.
- Cultural resistance in some educational contexts, students and teachers prefer traditional, teacher-centered methods.
- Limited resources schools may lack authentic materials or access to real communication tools.

Assessment in CLT-Based Speaking Instruction

Assessment in CLT should measure communicative competence, not just grammatical accuracy. Suggested methods include:

- Performance-based assessment evaluate role-plays, discussions, and presentations using rubrics.
- Peer and self-assessment involve learners in evaluating their own and others' communication.
- Portfolio assessment collect samples of speaking over time (e.g., recordings, reflections).
- Rubrics with fluency, appropriateness, and coherence criteria
Balance linguistic and functional performance.

Integrating CLT with Other Approaches

While CLT focuses on fluency and interaction, combining it with form-focused instruction (such as grammar explanation when needed) leads to more balanced development. This integrated approach ensures learners are not only fluent but also accurate.

Conclusion

The Communicative Language Teaching (CLT) approach represents a significant evolution in language pedagogy, particularly in the domain of speaking instruction. Its core philosophy—that language learning is most effective when learners are actively engaged in meaningful, purposeful communication—has transformed traditional classroom practices and made them more dynamic, interactive, and learner-centered. CLT moves away from the rigid, form-focused teaching that dominated the grammar-translation and audio-lingual methods of the past. Instead of isolating language into decontextualized rules and drills, CLT encourages the use of language in real-world contexts. This makes the classroom a simulation of authentic communicative environments, helping learners to develop not only grammatical accuracy but also pragmatic competence, fluency, and confidence.

One of the greatest strengths of CLT lies in its emphasis on **functional language use**. Learners are trained to navigate everyday situations, solve problems, express opinions, and interact naturally with others. This prepares them not just for exams, but for practical use of the language in academic, professional, and social settings. Activities such as role-plays, discussions, interviews, and task-based projects allow for creativity, collaboration, and critical thinking—skills essential in 21st-century education. Another important contribution of CLT is its role in promoting **learner autonomy and motivation**. By shifting the role of the teacher from knowledge-giver to facilitator, CLT empowers students to take charge of their learning. Students become more responsible, self-reflective, and engaged when they participate in meaningful communicative tasks, rather than memorizing abstract rules with little relevance to their personal lives. However, implementing CLT is not without challenges. Teachers may face difficulties related to large class sizes, limited resources, cultural resistance, or lack of training. Furthermore, assessing communicative competence requires alternative approaches that go beyond traditional grammar tests. Performance-based assessment, observation, self-evaluation, and rubric-based grading must be integrated into the curriculum to ensure that students' communicative growth is measured fairly and effectively.

In conclusion, CLT is a comprehensive and effective approach to developing speaking skills in language learners. Its success lies in its ability to balance **fluency and accuracy, structure and spontaneity, and individual and collaborative learning**. For speaking instruction to be truly effective, educators must embrace CLT principles while remaining flexible to their specific teaching contexts. They must also invest in ongoing professional development, adapt assessment methods, and design interactive, student-centered classrooms. Only through such efforts can the true potential of communicative language teaching be realized—producing learners who are not only proficient in the language but also confident, culturally aware, and capable of thriving in diverse communication settings.

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QONNING GISTALOGIK MOHIYATI, MORFOFUNKSIONAL XUSUSIYATLARI, HUJAYRAVIY DIVERSIFIKATSIYASI VA INTERTIZIMLI ALOQADORLIGI

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Anotatsiya

Ushbu maqolada qonning gistalogik mohiyati, morfofunktsional xususiyatlari, hujayraviiy diversifikatsiyasi va intertizimli aloqadorligi tahlil etiladi. Qon suyuq to'qima bo'lib, u nafaqat moddalar tashuvchisi, balki biologik axborotlar almashinuvi va immunologic javob reaksiyalarining markaziy kampanenti sifatidam faoliyat yuritadi.

Анотация

В данной статье анализируются гисталогическая сущность крови, её морфофункциональные особенности, клеточная дифференцировка и межсистемные взаимосвязи. Кровь представляет собой жидкую ткань, которая функционирует не только как переносчик веществ, но и как центральный компонент обмена биалогической информации и иммунологических ответных реакций.

Annatation

This Article analyzes the histological essence of blood, its morphofunctional characteristics, cellular diversification, and intersystemic connections. Blood is a fluid tissue that functions not only as a transporter of substances, but also as a central component in the exchange of biological information and immunological response reactions.

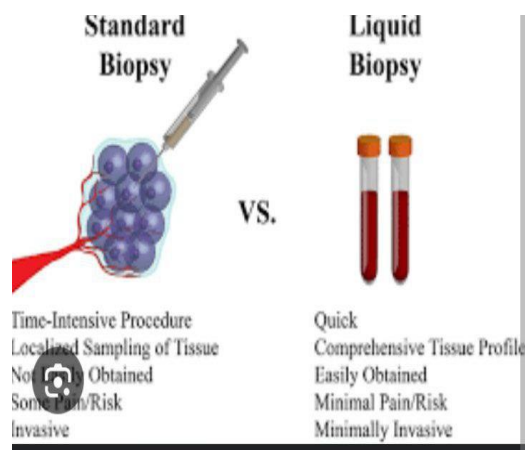
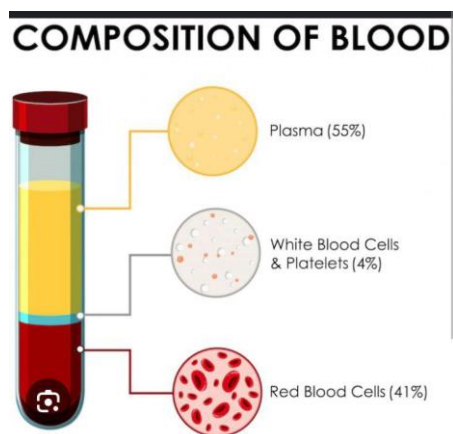
Kalit so'zlar: Gistogematologiya, Gemopoez, eritroid qator, immunotsit, trombokinetika, gomeostatik dinamizm, intersistemik integratsiya.

Ключевые слова

Гистогематология, гемопоэз, эритроидный ряд, иммуноцит, тромбокинетика, гомеостатическая динамика, интерсистемная интеграция.

Keywords:

Histohematology, hematopoiesis, erythroid lineage, immunocyte, thrombokinetics, homeostatic dynamics, intersystemic integration.



Qonning gistalogik ahamiyati va to'qimalar tarkibidagi o'rni:

Qon gistalogiyada suyuqlangan biriktiruvchi to'qima sifatidan qaraladi. U hujayralar va ekstratsellyulyar komponent – plazmadan iborat bo'lib o'zining dinamik harakatchanligi, multifunksionalligi va regeneratsion potentsiali bilan boshqa to'qimalardan ajralib turadi. Uning gistokimyoviy xususiyatlari uni nafaqat metabolik tashuvchi, balki immunologik va signal funksiyalarini bajarayotgan universal biotizm sifatida qarash imkonini beradi.

Plazma ekstratsellyulyar komponent sifatida qonning suyuq qismi bo'lib u suv (90 – 92%) oqsillar (7-%) elektrolitlar, fermentlar, garmonlar, gazlar va metabolitlar (1 – 2 %)dan iborat. Plazma ,bu oqsillar,ionlar,garmonlar,fermentlar va boshqa biokimyoviy komponentlarga boy kolloid eritmadi. U gemostatik tampon tizimi bo'lib,ph, osmotik bosim va elektrolit muvozanatni tartibga solib turadi. Plazmadagi fibrinogen protrombin kabi moddalar va fermentlar organizmning shoshilinch holatlarida zudlik bilan javob qaytarish mexanizmlarini faollashtiradi. Asosiy plazma oqsillari:

- **Albumin** _ osmotik bosimni ushlab turadi.
- **Glubulin** - immunoglobulinlar (IgA,IgG, IgM,va bjshqalar) tarkibida bo'ladi.
- **Fibrinogen** - qon ivishida ishtirok etadi

Plazmaning Vazifalari;

- **Transport: oziq** – moddalari, garmonlar,chiqindilarni tashiydi.
- **Himoya:** antitana va komplement tizimi bilan ishlaydi.
- **Gomeostaz: PH, harorat, ionlar balansini saqlaydi.**

Qonning shakilli elementlari – gistogematalogik tizimning maxsus differensiyalashgan hujayralari bo'lib, har bir o'ziga xos morfologik strukturaga va ixtisoslashgan funksiyalarga ega. Ular umumiy gemopoezdan kelib chiqqan bo'lsada har birining ro'li va tuzilma darajasi o'zaro mutanosib.

1. Eritrotsitlar (Erythrocytes) kislarod tashuvchi mikrodisklar

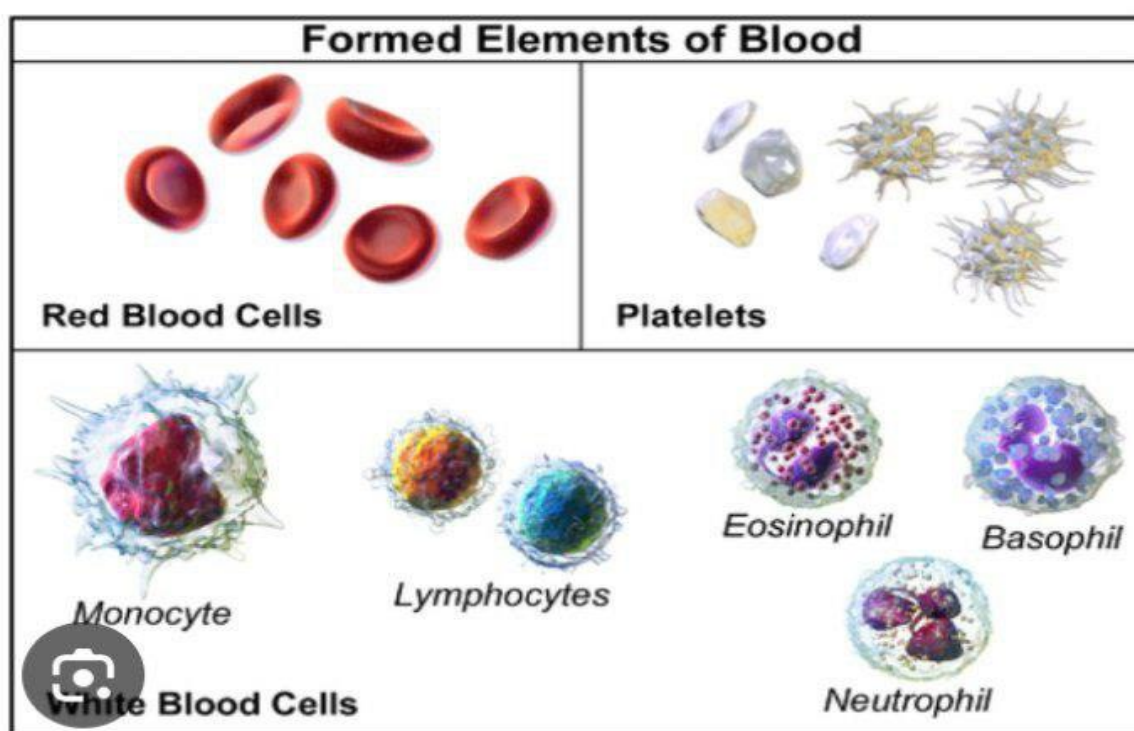
- Bikonkav shakli – yuzasining ko'payishi bilan gazlar diffuziyasini tezlashtiradi
 - Yadro yo'qligi – ichki makonni to'liq gemogloblin bilan to'ldirishga imkon beradi.
 - Sakrolemma ostida aktiv skelet oqsillari (ankirin,spektrin) bo'lib hujayra elastikligini ta'minlaydi.
 - O'lchami: - 7.5 mkm, mikrokaoyarlardan o'tish uchun optimal
 - Gomeostazda passiv ishtirok – qonning yopishqoqligi va oqimi uchun muhim
- #### 2. Leykotsitlar (leukocytes) – immunoprotektiv tsitotekspertlar ikki xil turi farqlanib:

A. Granulotsitlar (donador leykotsitla)

- Neutrofillar_ yadro segmentatsiyalangan mikrofaqarlar bo'lib ular, ko'p bo'limli yadroli (2-5 segment) funksiyalari: fagotsitoz – bakteriyalarni yutadi va yo'q qiladi, netoz – DNK tuzilmalari orqali patogenlarni o'raydi.
- Eozinofillar_ ektoparazitar o'ldiruvchi hujayralar bo'lib yadrosi ikki bo'limli funksiyalari : parazitlarga qarshi toksik oqsillar ajratadi, allergik javobda mediatorlar ishlab chiqaradi (IL-5 leukotrienlar)
- Bazofillar_ allergik signal relizatorlari yadrosi kam ko'rinadi funksiyalari: Anafilaktik reaksiyalarda ishtirok etadi, IgE bilan bog'lanib mediatorlarni ajratadi.

B. Agranulotsitlar (donasiz leykotsitlar)

- Limfotsitlar_ immunologik ixtisoslashgan yadro gigantlari funksiyalari: T- limfotsitlar – hujayra immun javab, B – limfotsitlar – antitana ishlab chiqaradim,Nk – hujayralar – virusli va o'sma hujayralarini yo'q qiladi.
- Monotsitlar_pre-makrofglar va to'qima skanerchilari funksiyalari; fagotsitoz, Antigenni prezintatsiya qilish (apc),to'qimalarga kirib makrofaglar yoki dendrit hujayralarga aylanadi.



3. Trombotsitlar (plateletlar) – ivishning biorobortlari qon ivishida fibrinogen von willebrand faktori serotonin,endotelial tiklanishda o'sish omillari chaqiradi (PDGF, TGF-b)

Gemopoez_ qon elementlarining rivojlanish manbalari qon hujayralari qizil ilikdagi pluripotent gematopoetik ildiz hujayralaridan rivojlanadi.Bu jarayon – gemopoez deb ataladi. Gistalogik jihardan bu jarayon eritropoez,granulotsitopoez, limfopoez kabi alohida yo'nalishlarga ega. Har bir yo'nalishning regulyatsiyasi sitokinlar va gematopoetik o'sish omillari orqali boshqariladi. Masalan eritropoetin – bu eritrotsitlar differenciasini rag'batlantiruvchi asosiy omildir.

Qonning organizmdagi intersistemikfunksiyalari qon faqat moddalar tashuvchi emas, balki organizmda sistemalar aro integratsiyani ta'minlovchi markaziy elementdir. U :

- Axborot tashuvchi (garmonlar, neyromediatorlar)
- Himoya qiluvchi (immunologik barqarorlik)
- Reparativ (jarohat joyida regeneratsiyani rag'batlantirish)
- Termoregulyator (harorat muvozanatini saqlash) funksiyalarini bajaradi. Qonning har bir komponenti organizmda muvozanat – gomeostazni saqlashda faol qatnashadi.

Xulosa: Qonning gistalogik jihatdan murakkab va ixtisoslashgan to'qima bo'lib, uning har bir elementi evolyutsion mukammallikka ega. Qonning harakatchanligi, interaktivligi, va Adaptiv imkoniyatlari uni tananing har bir sistemasiga bevosita bog'liq qilib qo'yadi. Gistalogik tahlillar orqali qonning nafaqat diagnostik, balki prognostik ahamiyatini ham aniqlash mumkin. Shu bois gistalogiyada qonni o'rganish – bu faqat bir to'qima emas, balki butun organizmni idrok etish yo'lidir.

Nol rezus-faktor (Rh-omil)li «oltin qon» sayyoradagi eng kam uchraydigan qondir

1961 yilgacha butun dunyo olimlari nol Rh-omilga ega bo'lgan barcha embrionlar bachadonda nobud bo'lishiga ishonishgan. Bugungi kunga qadar garchi ular ko'proq bo'lsa-da, dunyoda bunday qonning XVII asrga qadar insoniyat qon haqida juda noaniq tasavvurlarga ega edi. 1628 yilda ingliz shifokori va anatomi Uilyam Garvey insondagi qon aylanishini kashf etdi. Ko'p o'tmay, qon quyish bo'yicha birinchi urinishlar amalga oshirildi, muvaffaqiyatsiz tajribalar hayvonlar va odamlarning o'limi bilan yakunlandi. Taqiqlarga qaramay, ba'zida hayotni saqlab qolish uchun qon quyish qo'llanilib kelingan. 1815 yilda akusher Jeyms Blundell tug'ruqdan keyingi qon ketishidan aziyat chekkan bemor hayotini aynan shu usul yordamida saqlab qoldi. Avstriyalik shifokor va biokimyogar Karl Landshtayner qonning turlarini aniqlaganigacha qon quyish 1901 yilgacha noqonuniy bo'lgan. 1909 yilda Landshtayner o'z ishining natijalarini e'lon qildi va dunyoni 1, 2, 3 va 4 - to'rtta qon guruhi bilan tanishtirdi. Ushbu kashfiyot uchun olim 1930 yilda Nobel mukofotiga sazovor bo'ldi.(Internet Ma'lumoti)



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QULLARNING HUQUQLARI VA OZOD QILINISH JARAYONLARI

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Annotatsiya: Ushbu maqolada qullarning huquqlari va ularning ozod qilinish jarayonlari tarixiy, ijtimoiy va huquqiy jihatlar bilan tahlil qilinadi. Qullik institutining shakllanishi, qullarning jamiyatdagi o'rni va ularga nisbatan qo'llanilgan huquqiy cheklovlar ko'rib chiqiladi. Shuningdek, qullarning ozod qilinishi uchun amalga oshirilgan siyosiy, ijtimoiy harakatlar va qonuniy islohotlar jarayoni o'rganiladi. Maqola qullik tizimining inson huquqlari doirasidagi salbiy oqibatlarini yoritib, ozodlikka erishishdagi asosiy omillar va jarayonlarning dolzarbligini ko'rsatadi. Shu bilan birga, zamonaviy jamiyatda qullik va erkinlik tushunchalarining ahamiyati hamda inson huquqlarining himoyasi bo'yicha olib borilayotgan ishlarga e'tibor qaratiladi.

Kalit so'zlar: qullik, huquqlar, ozod qilish, jamiyat, huquqiy islohotlar, inson huquqlari, erkinlik.

Kirish.

Insoniyat tarixida qullik eng uzoq davom etgan va eng keskin ijtimoiy adolatsizliklardan biri sifatida e'tirof etiladi. Qullik jamiyatning turli bosqichlarida mavjud bo'lgan bo'lsa-da, u har doim inson erkinligi, sha'ni va huquqlariga qarshi bo'lgan hodisa sifatida tarixiy e'tirofga sazovor bo'lgan. Qullar – ya'ni o'z mehnatidan foydalana olmaydigan, mol-mulk sifatida qaralgan insonlar – turli davrlarda davlatlar iqtisodiyoti va ijtimoiy tuzilmalarida muhim, ammo ayanchli rol o'ynaganlar. Antik davr Yunonistonidan tortib Rim imperiyasigacha, Osiyo, Afrika va Amerika qit'alaridagi imperiyalargacha, qullik tizimi turli shakllarda mavjud bo'lgan. Qullar huquqlari masalasi tarix davomida murakkab va ziddiyatli bo'lib kelgan. Ular ko'pincha hech qanday huquq va ijtimoiy himoyasiz hayot kechirganlar, ularning oilasi ajratilgan, mehnati zo'ravonlik bilan ishlatilgan va insoniy qadr-qimmati rad etilgan. Shunga qaramay, ayrim davrlarda va mintaqalarda qullarning ma'lum huquqlari tan olingan holatlar ham kuzatilgan. Masalan, Rimda ba'zi qullar ma'lum shartlar asosida ozodlikka

erishish huquqiga ega bo'lgan, yoki Islom huquq tizimida qullarni ozod qilish savobli ish sifatida qaralgan. Qullik tizimining bekor qilinishi – ya'ni abolitsiya jarayonlari – XVIII asr oxiri va XIX asr davomida dunyoning ko'plab mamlakatlarida ijtimoiy, siyosiy va iqtisodiy omillar ta'sirida boshlangan. Ushbu jarayonlarda inson huquqlari harakati, diniy targ'ibot, iqtisodiy islohotlar, milliy mustaqillik harakatlari va ayrim ilg'or fikrli shaxslar (masalan, Uilyam Uilberfors, Abraham Linkoln, Frederik Duglass kabi) muhim rol o'ynagan. Qullikni bekor qilish nafaqat qonuniy jarayonlar, balki ommaviy qo'zg'olonlar, urushlar va xalqaro bosimlar orqali ham amalga oshirilgan. Mazkur maqolada qullarning tarixiy huquqiy maqomi, ularning qanday sharoitlarda yashaganligi, ularni ozod qilish mexanizmlari va bu boradagi global jarayonlar tahlil qilinadi. Ayniqsa, XIX asr abolitsiya harakatlari, zamonaviy inson huquqlari tushunchalari bilan bog'liq o'xshashlik va farqlar ham yoritib boriladi. Shuningdek, zamonaviy dunyoda mavjud bo'lgan yashirin va zamonaviy qullik shakllariga ham e'tibor qaratiladi.

Asosiy qism.

1. Qullik tushunchasi va tarixiy ildizlari. Qullik insoniyat tarixining deyarli barcha davrlarida mavjud bo'lgan mehnat va ijtimoiy munosabatlar shaklidir. Uning asosiy xususiyati – bir insonning boshqa inson ustidan to'liq egalik huquqiga ega bo'lishidir. Qullar odatda urushda asirga tushganlar, qarzdorlar, jinoyat sodir etgan shaxslar yoki tug'ma qullar bo'lgan. Qullik iqtisodiy manfaatlar, siyosiy tuzumlar va ijtimoiy qatlamlarning mustahkamlanishi uchun xizmat qilgan. Qadimgi Misr, Bobil, Hindiston, Xitoy, Gretsiya va Rim imperiyalarida qullik instituti muhim o'rin tutgan. Masalan, Qadimgi Rimda qullar aholining muhim qismini tashkil qilgan va ularning mehnati orqali butun imperiya iqtisodiyoti yuritilgan. Yunonistonda esa qullar faqat og'ir jismoniy mehnatda emas, balki uy-ro'zg'or, ta'lim, sanoat va hatto davlat ishlarida ham qatnashgan. Shu bilan birga, Rim huquqi va diniy qarashlarda qullarning ayrim minimal huquqlari tan olingan holatlar ham bo'lgan.

2. Qullarning huquqlari: mavjudligi va cheklovlari. Tarixiy manbalarda qullarning huquqlari to'g'risida turli yondashuvlar mavjud. Umuman olganda, ko'pchilik jamiyatlarda qullar huquqsiz hisoblangan. Ular mulk sifatida ko'rilgan, ularning turmushi, shaxsiyati, oila qurish huquqi, mulkka egalik qilish yoki qaror qabul qilish erkinligi bo'lmagan. Biroq, ba'zi madaniyatlarda qullarga nisbatan insofli munosabat shakllari ham mavjud bo'lgan. Islom huquqi qullarga nisbatan mo'tadilroq yondashuvni targ'ib qilgan. Qur'oni Karimda qullarga yaxshi munosabatda bo'lish, ularni ozod qilishni savobli amallar sirasiga qo'shish haqidagi oyatlar mavjud. Shuningdek,

Muhammad (s.a.v.) hadislarida qullarning huquqlari muqaddas hisoblangan. Islomda qullarning ibodat qilish, oila qurish va ozod bo'lishga intilish huquqlari tan olingan. Bu yondashuv boshqa dinlarga qaraganda ijobiyroq baholangan. Rim huquqida esa ba'zi qullar mulkka ega bo'lish, o'zini ozod qilish uchun mablag' yig'ish yoki ma'lum ijtimoiy maqomga ega bo'lish imkoniyatiga ega bo'lgan. Bu holatlar har doim ham keng tarqalmagan bo'lsa-da, u qullik tizimining murakkabligini ko'rsatadi.

3. Qullikning bekor qilinishi: abolitsiya harakatlari. XVIII asrning oxiri va XIX asrda Yevropa va Amerikada abolitsionistlar – qullikni bekor qilish tarafdorlari – faoliyat boshladi. Bu harakatlar inson huquqlari tushunchasining rivojlanishi, diniy e'tiqodlar, iqtisodiy o'zgarishlar va ijtimoiy adolat istagi bilan bog'liq edi. Angliyada Uilyam Uilberfors boshchiligidagi abolitsionistlar 1807 yilda Atlantika qul savdosini taqiqlashga erishdilar, 1833 yilda esa butun Britaniya imperiyasida qullik qonuniy ravishda bekor qilindi. Amerika Qo'shma Shtatlarida esa abolitsiya jarayoni murakkab va zo'ravon bo'lib kechdi. Janubiy shtatlar qullik tizimiga qattiq bog'langan edi, shimol esa unga qarshi kurash olib bordi. Bu qarama-qarshilik oxir-oqibat 1861–1865 yillardagi Amerika fuqarolar urushiga olib keldi. Urush yakunida Prezident Abraham Linkoln tomonidan 1863 yilda e'lon qilingan “Emansipatsiya deklaratsiyasi” va 1865 yilda qabul qilingan AQSh Konstitutsiyasining 13-o'zgartmasi orqali qullik qonuniy ravishda bekor qilindi. Lotin Amerikasi, Osiyo va Afrikada ham turli vaqtlarda abolitsiya harakatlari amalga oshirilgan. Masalan, Braziliyada qullik 1888 yilda rasmiy bekor qilindi, bu Lotin Amerikasida qullikni bekor qilgan oxirgi davlat hisoblanadi.

4. Qullikdan keyingi ijtimoiy va iqtisodiy o'zgarishlar. Qullikning bekor qilinishi nafaqat huquqiy islohotlar, balki jamiyatning ijtimoiy va iqtisodiy tuzilmasiga ham katta ta'sir ko'rsatdi. Ko'plab davlatlarda ozod etilgan qullar yer yoki mulk ololmagan, ular kambag'allik va kamsitish muhitida yashashga majbur bo'lgan. Bu holatlar yangi ijtimoiy tengsizlik shakllarini vujudga keltirgan. Shu bois, abolitsiyadan keyingi davrda teng huquqli jamiyat qurish yo'lida uzoq yillar davom etgan kurashlar bo'lib o'tgan.

5. Zamonaviy qullik: yangi shakllar va global muammo. Bugungi kunda rasmiy ravishda deyarli barcha davlatlarda qullik taqiqlangan bo'lsa-da, zamonaviy dunyoda yashirin va noan'anaviy qullik shakllari mavjud. Ular orasida majburiy mehnat, bolalar mehnati, jinsiy ekspluatatsiya, inson savdosi kabi holatlar mavjud. Xalqaro Mehnat Tashkiloti (ILO) va BMT ma'lumotlariga ko'ra, hozirgi kunda dunyo bo'ylab millionlab insonlar zamonaviy qullik holatlariga duch kelmoqda. Zamonaviy qullikka qarshi kurashish uchun global miqyosda qonunlar, xalqaro bitimlar va monitoring tizimlari joriy etilgan. Shu bilan birga, fuqarolik jamiyati, nodavlat tashkilotlar va ommaviy

axborot vositalari orqali bu muammoni yoritish va qarshi kurashish dolzarb bo‘lib qolmoqda.

Xulosa:

Qullik tizimi insoniyat tarixida ko‘plab jamiyatlarda mavjud bo‘lgan va ko‘plab insonlarning erkinlikdan mahrum bo‘lishiga sababchi bo‘lgan ijtimoiy inqirozdir. Ushbu maqolada qullarning huquqlari, ularning cheklanganligi va erkinlik uchun olib borilgan kurashlar batafsil tahlil qilindi. Tarixiy jarayonlarda qullik tizimining yo‘q qilinishi uchun qator qonuniy va ijtimoiy islohotlar amalga oshirildi, bu esa inson huquqlarining rivojlanishi va jamiyatlarda adolatning o‘shishiga xizmat qildi. Bugungi kunda zamonaviy shakllarda namoyon bo‘layotgan qullik va ekspluatatsiyaga qarshi kurash inson huquqlarini mustahkamlash va erkinlikni ta‘minlashda davom etmoqda. Shuning uchun qullarning huquqlari va ozod qilinish jarayonlarini o‘rganish nafaqat tarixiy ahamiyatga ega, balki zamonaviy ijtimoiy adolatni ta‘minlash uchun ham muhimdir.

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ИЗМЕНЕНИЯ УРОВНЯ ГЕМОГЛОБИНА В КРОВИ В ЗАВИСИМОСТИ ОТ ВОЗРАСТА И ПОЛА

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АННОТАЦИЯ: Гемоглобин — ключевой компонент крови, обеспечивающий транспорт кислорода и углекислого газа. Его уровень варьируется в зависимости от возраста и пола, что отражается на физиологических процессах и общем состоянии здоровья. Повышенные или пониженные показатели гемоглобина могут свидетельствовать о наличии заболеваний, таких как анемия или гипоксия.

В младенческом и детском возрасте уровень гемоглобина, как правило, выше из-за интенсивных процессов роста. У пожилых людей он может снижаться на фоне хронических заболеваний. Половые различия также играют важную роль: у мужчин уровень гемоглобина выше за счёт воздействия тестостерона, стимулирующего выработку эритроцитов; у женщин — ниже, особенно в связи с менструациями и беременностью.

Понимание возрастных и половых изменений уровня гемоглобина имеет большое значение для точной диагностики и индивидуального подхода к лечению. Учет этих факторов помогает вовремя выявлять отклонения и повышает эффективность профилактики заболеваний.

Настоящее исследование подчёркивает необходимость персонализированного подхода при интерпретации показателей крови и назначении терапии.

Ключевые слова: гемоглобин, возраст, пол, анемия, физиология, кровь.

АКТУАЛЬНОСТЬ ПРОБЛЕМЫ: Уровень гемоглобина в крови является важнейшим индикатором состояния здоровья человека, поскольку он непосредственно связан с обеспечением тканей организма кислородом и углекислым газом. Нарушение нормальных показателей гемоглобина может быть признаком различных заболеваний, таких как анемия, гипоксия, сердечно-сосудистые заболевания и другие расстройства. В связи с этим, изучение

изменений уровня гемоглобина в зависимости от возраста и пола является актуальной задачей современной медицины.

Возрастные и половые различия в уровне гемоглобина играют важную роль в диагностике и профилактике заболеваний. Например, уровень гемоглобина у женщин и мужчин может значительно отличаться из-за физиологических различий, таких как менструации у женщин и более высокая концентрация тестостерона у мужчин, что влияет на производство эритроцитов. У детей уровень гемоглобина значительно выше, что связано с физиологическими потребностями организма в кислороде, тогда как у пожилых людей часто наблюдается снижение уровня гемоглобина, что может быть связано с хроническими заболеваниями или недостаточностью железа.

Особое внимание следует уделить возрастным изменениям уровня гемоглобина, поскольку в младенческом возрасте уровень гемоглобина значительно выше, чем у взрослых. В старшем возрасте уровень гемоглобина может снижаться, что связано с возрастными изменениями в организме, такими как снижение усвоения железа, хронические заболевания или недостаток питательных веществ. Эти изменения имеют важное значение для диагностики и лечения заболеваний, таких как железодефицитная анемия, хронические заболевания сердца и сосудов, а также болезни почек.

Таким образом, исследование изменений уровня гемоглобина в зависимости от возраста и пола имеет большое значение как для теоретической медицины, так и для практического здравоохранения. Это позволяет более точно оценивать состояние здоровья пациента, проводить раннюю диагностику заболеваний и разрабатывать эффективные методы лечения. Актуальность данной проблемы заключается также в том, что знание норм гемоглобина для разных возрастных и половых групп может существенно улучшить качество диагностики и снизить риски возникновения заболеваний, связанных с отклонениями в уровне гемоглобина.

ВВЕДЕНИЕ: Гемоглобин — это важнейший белок, содержащий железо, который находится в эритроцитах крови. Он выполняет ключевую функцию транспортировки кислорода от легких к тканям и углекислого газа от тканей к легким. Нормальный уровень гемоглобина является важным фактором для поддержания здоровья, поскольку он напрямую связан с обеспечением организма кислородом, что критически важно для нормального функционирования всех органов и систем.

Однако уровень гемоглобина может значительно изменяться в зависимости от различных факторов, таких как возраст, пол, физиологическое состояние организма и наличие заболеваний. Особенно важными являются возрастные и половые различия в уровне гемоглобина. Эти различия могут играть ключевую роль в диагностике множества заболеваний, таких как анемия, гипоксия, дефицит железа и другие расстройства, связанные с нарушением нормального обмена веществ.

Уровень гемоглобина значительно варьируется у различных возрастных групп. У новорожденных и детей уровень гемоглобина обычно выше, чем у взрослых, что связано с повышенной потребностью в кислороде в периоды активного роста и развития. С возрастом уровень гемоглобина постепенно стабилизируется и становится более одинаковым среди взрослых. Однако в пожилом возрасте наблюдается тенденция к снижению уровня гемоглобина, что связано с различными физиологическими изменениями, такими как ухудшение усвоения питательных веществ, хронические заболевания или снижение кроветворной активности организма.

Кроме того, половые различия играют важную роль в уровнях гемоглобина. У мужчин уровень гемоглобина, как правило, выше, чем у женщин. Это связано с гормональными различиями, в частности с более высокой концентрацией тестостерона, который стимулирует производство эритроцитов и, соответственно, увеличивает уровень гемоглобина. У женщин уровень гемоглобина может колебаться в зависимости от менструального цикла, беременности и других физиологических процессов. Например, во время менструации женщины теряют кровь, что может привести к временным колебаниям уровня гемоглобина.

Изучение этих возрастных и половых различий в уровне гемоглобина важно как для теоретической медицины, так и для практической клиники. Понимание нормальных значений гемоглобина для различных возрастных и половых групп позволяет врачам правильно интерпретировать результаты анализов крови, своевременно выявлять отклонения и назначать эффективное лечение.

Таким образом, исследование изменений уровня гемоглобина в зависимости от возраста и пола представляет собой важную задачу в современной медицине. Понимание этих изменений помогает в диагностике заболеваний, связанных с нарушением уровня гемоглобина, а также способствует разработке более точных методов профилактики и лечения различных расстройств и заболеваний крови.

ОСНОВНАЯ ЧАСТЬ: Возрастные изменения уровня гемоглобина.

Уровень гемоглобина в организме человека изменяется на протяжении всей жизни. В первые недели и месяцы жизни уровень гемоглобина у младенцев достаточно высок, что связано с необходимостью удовлетворения потребности организма в кислороде, поскольку дыхательная система новорожденных еще не завершила своего формирования. У новорожденных уровень гемоглобина может достигать 18-22 г/дл, что значительно выше, чем у взрослых.

Однако с течением времени уровень гемоглобина начинает снижаться, особенно в первые годы жизни, когда организм начинает привыкать к внешнему дыханию. У детей старшего возраста, а также у подростков уровень гемоглобина постепенно стабилизируется. До определенного возраста (до 6-7 лет) уровень гемоглобина у детей может быть выше, чем у взрослых, что связано с высоким потреблением кислорода, необходимым для роста и развития организма.

С возрастом в зрелом возрасте уровень гемоглобина у мужчин и женщин становится более стабильным, однако у пожилых людей наблюдается постепенное снижение его уровня. Это снижение уровня гемоглобина в старости связано с несколькими факторами, включая ухудшение усвоения железа, снижение активности костного мозга, а также наличие хронических заболеваний. У пожилых людей также наблюдается снижение физической активности, что также может способствовать уменьшению уровня гемоглобина. Снижение уровня гемоглобина у пожилых людей может привести к развитию железодефицитной анемии, которая является довольно распространенной у данной возрастной группы.

Половые различия в уровне гемоглобина. Половые различия в уровне гемоглобина также имеют важное значение для правильной интерпретации анализов крови. У мужчин уровень гемоглобина обычно выше, чем у женщин. Это связано с воздействием тестостерона, который стимулирует синтез эритроцитов в организме мужчин, увеличивая уровень гемоглобина. У мужчин нормы гемоглобина обычно составляют 130-170 г/л, тогда как у женщин этот показатель варьируется от 120 до 150 г/л.

Одним из факторов, влияющих на снижение уровня гемоглобина у женщин, является менструация. Во время менструального цикла женщины теряют кровь, что может привести к временному снижению уровня гемоглобина. Особенно это проявляется у женщин с обильными менструациями, у которых часто наблюдается железодефицитная анемия. Еще одним важным моментом является беременность.

Во время беременности увеличивается объем плазмы крови, что снижает концентрацию гемоглобина, приводя к физиологической анемии, которая является нормой для многих женщин в этот период.

Помимо менструаций и беременности, гормональные изменения у женщин могут оказывать влияние на уровень гемоглобина. Например, с возрастом у женщин наступает менопауза, что также сопровождается изменениями в уровне гемоглобина. Снижение уровня эстрогенов после менопаузы может приводить к снижению уровня гемоглобина.

Заболевания, связанные с изменениями уровня гемоглобина. Уровень гемоглобина может служить индикатором различных заболеваний. Например, снижение уровня гемоглобина в крови, особенно у детей и пожилых людей, может указывать на развитие железодефицитной анемии. Это состояние, вызванное дефицитом железа в организме, является одним из самых распространенных заболеваний в мире. Анемия может быть связана с недостаточным потреблением железа с пищей, нарушением его усвоения или хронической потерей крови, например, при язвенных заболеваниях желудочно-кишечного тракта.

Другими заболеваниями, которые могут влиять на уровень гемоглобина, являются заболевания почек, где снижение функции почек нарушает синтез эритропоэтина, гормона, который стимулирует производство эритроцитов. При хронической почечной недостаточности уровень гемоглобина часто снижается.

Нормы гемоглобина для различных возрастных и половых групп. Для правильной диагностики крайне важно понимать возрастные и половые различия в нормальных значениях гемоглобина. Например, нормы гемоглобина для новорожденных и детей значительно отличаются от норм для взрослых. У новорожденных гемоглобин может составлять 18-22 г/дл, у детей старшего возраста — 12-16 г/дл, а у взрослых мужчин нормальный уровень гемоглобина составляет 130-170 г/л, а у женщин — 120-150 г/л.

Примечание о возрастных различиях также важно для интерпретации анализов у пожилых людей. У пожилых людей уровень гемоглобина может снижаться из-за возрастных изменений в организме, что требует более внимательного подхода в диагностике и лечении заболеваний, связанных с этим отклонением.

ЗАКЛЮЧЕНИЕ: Изучение изменений уровня гемоглобина в зависимости от возраста и пола представляет собой важную и актуальную задачу для

медицины. Уровень гемоглобина является одним из важнейших показателей общего состояния здоровья человека, и его отклонения могут свидетельствовать о различных заболеваниях, включая анемию, гипоксию и полицитемию. Таким образом, знание возрастных и половых норм гемоглобина играет ключевую роль в правильной интерпретации лабораторных анализов и диагностики.

Возрастные изменения уровня гемоглобина имеют свою специфику, особенно в ранние и поздние периоды жизни. У младенцев и детей уровень гемоглобина обычно выше, что связано с повышенной потребностью в кислороде на стадии активного роста. В более старшем возрасте, а также у пожилых людей уровень гемоглобина может снижаться, что требует внимательного подхода к диагностике и лечению заболеваний, связанных с дефицитом железа или нарушениями в кроветворении.

Кроме того, половые различия играют значительную роль в уровнях гемоглобина. У мужчин уровень гемоглобина, как правило, выше, что связано с особенностями гормонального фона, в частности с действием тестостерона. У женщин уровень гемоглобина может колебаться в зависимости от менструального цикла, беременности и других физиологических процессов, таких как менопауза. Понимание этих различий важно для своевременного выявления отклонений от нормы и эффективного лечения.

Уровень гемоглобина также служит важным маркером различных заболеваний. Низкий уровень гемоглобина может указывать на анемию, дефицит железа или хронические заболевания, такие как заболевания почек или желудочно-кишечного тракта. Высокий уровень гемоглобина, в свою очередь, может быть признаком полицитемии или хронической гипоксии.

Итогом данного исследования является то, что возрастные и половые различия в уровне гемоглобина должны учитываться при проведении анализов крови, а также при разработке профилактических и лечебных мероприятий. Эти данные служат основой для дальнейших исследований, направленных на улучшение диагностики и лечения заболеваний, связанных с изменениями в уровне гемоглобина.

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THE ROLE OF DIRECT METHOD IN TEACHING SPEAKING SKILL

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Abstract: Speaking is a core skill in language learning and teaching, and one of the most challenging to master. The Direct Method offers a powerful approach for improving speaking skills by immersing learners in the target language from the very beginning. Unlike traditional methods that rely on translation and grammar drills, the Direct Method emphasizes natural language use, real-life communication, and thinking in the second language. This article explores the theoretical background, principles, advantages, limitations, and classroom applications of the Direct Method in enhancing students' oral communication skills. It also discusses how the method fosters confidence, fluency, and spontaneous language use among learners of different levels.

Keywords: Direct Method, Speaking Skill, Oral Communication, Language Acquisition, Second Language Learning, Fluency Development, Natural Approach, Classroom Interaction, Student-Centered Learning, Immersion Technique, Communicative Competence, Listening and Speaking, Active Participation, Target Language

The growing need for communicative competence in foreign languages has led educators to seek methods that prioritize speaking skills. The Direct Method is one such approach that emerged in the late 19th and early 20th centuries as a response to the limitations of the Grammar-Translation Method. As global interactions increase, especially in academic, business, and technological fields, effective speaking skills are more essential than ever. This article examines how the Direct Method can be an effective tool in developing these skills. The Direct Method is grounded in natural

language acquisition theories, particularly those emphasizing the importance of exposure and interaction. It draws from behaviorist principles such as repetition

The Direct Method is grounded in natural language acquisition theories, particularly those emphasizing the importance of exposure and interaction. It draws from behaviorist principles such as repetition and imitation, while also aligning with constructivist ideas that highlight the role of active learner engagement. Language is viewed as a tool for communication rather than a set of abstract rules to be memorized. Hence, students are encouraged to speak and think in the target language, which mirrors the way children learn their first language.

Principles of the Direct Method

1. No Use of the Native Language – All instruction is given in the target language.
2. Vocabulary through Demonstration – Teachers use visual aids, gestures, and realia to convey meaning.
3. Grammar Taught Inductively – Learners notice patterns and rules through usage, not direct explanation.
4. Speaking and Listening First – Reading and writing come later, supporting spoken language.
5. Pronunciation and Intonation Emphasized – Correct speech sounds are constantly modeled and practiced.
6. Interactive Techniques – Role-plays, Q&A sessions, storytelling, and dialogue practice are used.

Advantages of the Direct Method in Teaching Speaking Skills
Fluency Development: Continuous speaking practice improves speed and spontaneity in using the language.

Confidence Building: Frequent speaking builds learners' self-esteem and reduces fear of making mistakes.

Natural Use of Language: Learners develop an intuitive sense of how language works.

Improved Pronunciation: Constant exposure and correction help learners sound more natural.

Active Engagement: Learners are always involved in the learning process, which boosts motivation. **Challenges and Limitations**

Despite its many benefits, the Direct Method also presents several challenges:

Teacher Requirement: Requires skilled teachers who are fluent and creative in explaining concepts without translation.

Not Ideal for Beginners with Zero Exposure: Total immersion can be frustrating for absolute beginners.

Limited Focus on Writing and Grammar: Students may become fluent speakers but make structural errors in writing.

Resource-Intensive: Needs small classes, ample visual aids, and intensive interaction.

Practical Applications in the Classroom

Use of pictures, objects, and actions to introduce new vocabulary.

Q&A sessions where the teacher asks questions and students answer in complete sentences. Dialogues and conversations about familiar topics such as daily routine, shopping, school, etc.

Role-playing real-life situations like ordering food, making appointments, or giving directions.

Error correction on the spot, focusing on pronunciation, word order, and vocabulary use. **Case Studies and Research Findings**

Several studies have shown the effectiveness of the Direct Method in improving speaking fluency:

A study by Mora & Flores (2012) found that students exposed to the Direct Method performed better in oral exams compared to those taught through the Grammar-Translation Method.

Karim & Nassaji (2015) observed improved confidence and participation in learners engaged in direct conversation-based classes.

Rahimi (2018) noted that vocabulary retention and pronunciation accuracy were higher among students taught with the Direct Method. The Direct Method remains one of the most effective approaches for developing speaking skills in a second language. Its focus on natural communication, active learner involvement, and immersive language use

creates a rich environment for oral skill development. Although it has limitations and requires skilled instructors, its benefits for language fluency, confidence, and communicative competence are undeniable. By prioritizing speech from the beginning and removing dependence on translation, learners become more independent and expressive users of the target language.

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Тешабоева, Н. (2023). Teaching writing as a major part of productive skills in mixed ability classes . Информатика и инженерные технологии, 1(2), 652–656. Начало формы

THE EDUCATION SYSTEM OF THE USA: PRESCHOOL EDUCATION, SECONDARY AND HIGHER EDUCATION, SCHOOL FORMS

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Abstract: The education system of the United States is a complex and diverse structure that encompasses multiple levels and institutional types, reflecting the country's federal approach to governance and emphasis on educational accessibility. This article examines the major components of the U.S. education system, including preschool (early childhood education), secondary education (middle and high schools), and higher education (colleges and universities). Each stage of education is explored in detail, with attention to curriculum design, teaching methods, school types (public, private, and charter schools), and the role of standardized testing. Special focus is given to the variety of school forms and educational pathways that students may follow, depending on their interests, talents, and regional regulations. The article also highlights key features such as the academic calendar, grade levels (K–12), the credit system in high schools and colleges, and the structure of degrees in higher education (Associate's, Bachelor's, Master's, and Doctoral levels). By analyzing these elements, the article aims to provide a clear and informative overview of how education functions in the United States and how it prepares students for the challenges of modern life and global competition.

Key words: USA education system, preschool education, secondary education, higher education, public vs private schools.

The education system of the USA

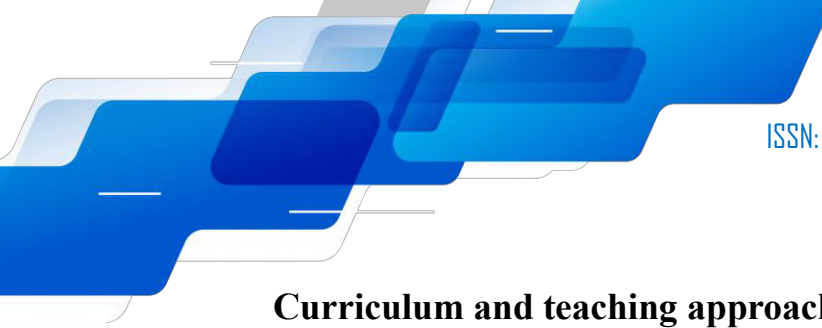
The education system of the United States plays a fundamental role in the development of individuals and the progress of society as a whole. It is known for its diversity, flexibility, and emphasis on personal choice and equal opportunity. Unlike many countries with a centralized education structure, the USA operates under a decentralized system where each state and local government has considerable authority over its own educational policies, curriculum, and funding mechanisms. This means that while there are national educational trends and standards, the exact experience of a student can vary widely from one state or district to another. The USA education system is typically divided into several major stages: **early childhood education (preschool), primary and secondary education (K–12), and higher education (college and university levels)**. Each of these stages is designed to build upon the previous one, helping students grow academically, socially, and emotionally. Education is compulsory in most states from around age five or six until at least sixteen, ensuring that all children receive a basic education. One of the key characteristics of the American education system is the wide variety of school forms and learning paths available to students. Public schools, which are funded by taxes and free to attend, serve the majority of American children. However, private schools, charter schools, and homeschooling also play significant roles. This variety provides families with choices that best meet their children's needs and values. Another important feature is the strong emphasis on developing not only academic knowledge but also critical thinking, creativity, and independence. Students are encouraged to participate in extracurricular activities such as sports, music, arts, and volunteer work, all of which are considered important parts of a well-rounded education.

Preschool education: preschool education, also known as early childhood education, refers to the stage of learning that occurs before a child enters formal primary school. In

the United States, preschool typically includes children from ages **3 to 5**, and although it is not mandatory, it is widely regarded as an essential foundation for later academic and social success. Preschool education in the U.S. is designed to support the overall development of children—**cognitive, emotional, social, and physical**—through age-appropriate learning activities. Unlike formal schooling, preschool emphasizes **play-based learning**, where children explore the world around them through games, creative tasks, storytelling, music, and interactive group activities. This helps children build basic skills such as language, communication, problem-solving, and self-regulation.

There are several types of preschool programs available in the United States, including:

- a. **Public preschools:** These programs are often funded by state or federal governments and may be free or low-cost for eligible families. For example, the Head Start program, established in 1965, provides comprehensive early childhood education, health, and nutrition services to children from low-income families.
- b. **Private preschools:** Operated by private organizations or individuals, these schools usually charge tuition and may offer specialized curricula based on religious, educational, or philosophical approaches (e.g., Montessori, Reggio Emilia, or Waldorf).
- c. **Pre-kindergarten (Pre-K):** A bridge between preschool and kindergarten, Pre-K programs are often offered in public schools and aim to prepare 4-year-olds for the academic and social demands of elementary school.
- d. **Nursery schools and daycare centers:** These facilities often provide both childcare and early education, especially useful for working parents. While not all daycare centers follow structured educational programs, many include learning activities tailored to young children's developmental stages.



Curriculum and teaching approach

Preschool curricula in the United States vary depending on the program type and educational philosophy. However, most programs focus on:

Language development (alphabet, vocabulary, storytelling)

Mathematics readiness (counting, shapes, patterns)

Fine and gross motor skills (drawing, cutting, physical play)

Social-emotional learning (cooperation, empathy, self-control)

Creative arts (music, dance, painting)

Teachers in preschool settings are trained in early childhood education and are skilled in creating safe, supportive, and stimulating environments. In high-quality programs, class sizes are small, allowing for individual attention.

Importance of Preschool Education

Research has shown that children who attend preschool are more likely to perform well in school, graduate from high school, and experience long-term academic and social success. Preschool helps reduce achievement gaps between children from different socioeconomic backgrounds and supports early brain development during the most critical years of a child's life.

Access and Challenges

Despite its benefits, access to quality preschool education is not universal in the United States. Many families face challenges such as high costs, limited availability in rural areas, or long waiting lists. To address this, many states have expanded public Pre-K programs and increased funding for early education, but disparities still exist.

Secondary Education

Secondary education in the United States plays a vital role in the academic, personal, and social development of students. It follows elementary education and typically includes students **from 6th through 12th grade**, generally between the ages of **11 and 18**. This stage is compulsory in all states, although the required school attendance age varies—most states mandate schooling until age 16 or 18.

In the U.S., secondary education is divided into two main stages:

- **Middle School** (Grades 6–8): This serves as a transition from childhood to adolescence. Students are introduced to subject-specific teachers, a more structured schedule, and greater personal responsibility.
- **High School** (Grades 9–12): This final stage of K–12 education prepares students for higher education or the workforce. Students typically enter high school at age 14 and graduate at 18.

Each grade level in high school has a specific designation:

9th grade – Freshman

10th grade – Sophomore

11th grade – Junior

12th grade – Senior

To graduate from high school and receive a **High School Diploma**, students must fulfill specific credit and course requirements. These usually include:

4 years of English

3–4 years of Mathematics

3 years of Science (Biology, Chemistry, Physics)

3 years of Social Studies (History, Civics, Geography)

1–2 years of a Foreign Language

Physical Education and various **elective courses**

In some states or districts, students may also be required to pass exit exams, complete community service hours, or present a final senior project. The **curriculum** in secondary schools is broad and diverse. Alongside core subjects, students can choose from a variety of elective courses based on their interests or career goals. Electives may include:

- Visual and Performing Arts (music, theatre, drawing)
- Business and Economics
- Computer Science and Robotics
- Journalism and Media
- Vocational Training (automotive repair, culinary arts, cosmetology)

High-achieving students can enroll in **Advanced Placement (AP)** or **Honors** courses, which offer more rigorous content and, in the case of AP, can lead to college credit if passed with high scores. Another important aspect of American secondary education is extracurricular activities. Students are encouraged to participate in sports, academic clubs, music bands, debate teams, student government, and community service. These activities help foster leadership, teamwork, time management, and a sense of community.

Secondary education is provided through different types of schools, including:

1. Public Schools – Funded by government taxes, free of charge for residents.
2. Private Schools – Funded by tuition and private sources, often with religious or alternative educational focuses.
3. Charter Schools – Publicly funded but independently managed, offering innovative curricula.
4. Magnet Schools – Public schools with specialized programs in subjects like STEM or the arts.

5. Alternative Schools – Designed for students with special learning needs or behavioral challenges.

Despite the many strengths of the U.S. secondary education system, several challenges remain. These include educational inequality, underfunded schools, teacher shortages, and high dropout rates in some regions. Efforts at the federal and state levels continue to focus on improving access to quality education, closing achievement gaps, and preparing students for the demands of the modern world.

Higher Education

The higher education system in the United States is considered one of the most diverse, flexible, and prestigious in the world. It offers a wide range of academic, professional, and vocational opportunities for students after they complete high school (secondary education), usually beginning around the age of 18. Higher education in the USA is provided by different types of institutions, including community colleges, universities, liberal arts colleges, and vocational schools. There are several main types of higher education institutions in the USA. **Community colleges** are two-year institutions that offer associate degrees. They are often more affordable and allow students to transfer to four-year colleges or universities later. **Four-year colleges** and **universities** offer bachelor's degrees and often also provide graduate programs. The term "college" usually refers to institutions that focus mainly on undergraduate education, while "university" refers to institutions that also offer graduate and research programs. In addition, **vocational or technical schools** provide practical and job-focused training in specific fields like nursing, culinary arts, information technology, or mechanics. USA higher education includes several academic levels. The **Associate Degree** usually takes two years to complete and is often earned at community colleges. The **Bachelor's Degree** is a four-year undergraduate degree awarded in fields such as science, business, education, or the arts. After earning a bachelor's degree, students may continue with a **Master's Degree**, which typically requires one to two additional years of specialized study. The

highest academic level is the *Doctoral Degree (Ph.D.)*, which involves in-depth research and can take several years to complete. Admission to American colleges and universities is competitive and based on a variety of factors. These may include a student's high school grades, standardized test scores (such as the SAT or ACT), letters of recommendation, personal essays, and participation in extracurricular activities. International students are also required to prove their English proficiency, often through exams like TOEFL or IELTS. One of the challenges of higher education in the U.S. is its high cost. Tuition fees can be expensive, especially at private universities. However, there are many options available to help students afford their education. These include scholarships, grants, student loans, and work-study programs. Scholarships and grants do not have to be repaid and are awarded based on academic achievement or financial need. Student loans must be repaid after graduation, while work-study allows students to earn money through part-time campus jobs. Another important feature of the U.S. higher education system is its flexibility. Students can choose from a wide variety of majors and minors, transfer between institutions, and even switch their academic focus after beginning their studies. Many universities also offer online programs and part-time options for non-traditional or working students. Higher education in the USA offers students not only strong academic training but also opportunities for personal growth, professional development, and social engagement. Its global reputation and innovative structure continue to attract millions of students from around the world.

Private Schools vs Public Schools

The American education system includes both public and private schools, each with its own features, strengths, and challenges. Understanding the differences between them helps students and parents make informed decisions about education.

- **Public schools** are funded by the government through local, state, and federal taxes. They are free to attend for all students living within the school district.

Public schools must follow state education standards and curricula. Teachers are required to be certified, and the schools are overseen by local school boards.

- **Private schools**, on the other hand, are funded through tuition paid by families and sometimes by donations or religious organizations. They are not controlled by the government and have more freedom in setting their own curricula, hiring teachers, and establishing rules and policies. Most private schools charge tuition, which can range from a few thousand to tens of thousands of dollars per year.

Conclusion

The education system of the United States is a comprehensive and diverse structure that guides students from early childhood to advanced academic and professional levels. Beginning with preschool education, it fosters foundational skills and social development. Through elementary and secondary education, students gain essential knowledge and prepare for future academic or career paths. The system offers both public and private schooling options, allowing families to choose according to their values and resources. Higher education in the USA is known for its flexibility, quality, and global recognition. Institutions such as community colleges, universities, and vocational schools provide a variety of academic opportunities and career pathways. Although challenges such as high tuition fees exist, scholarships and financial aid make education more accessible. Overall, the American education system emphasizes independence, critical thinking, and creativity—values that contribute to the success of individuals and the progress of society.

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THE USA ECONOMY, INDUSTRY, MANUFACTURING AND NATURAL RESOURCES OF THE USA

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Abstract: This article explores the economy, industry, manufacturing, and natural resources of the United States of America. It discusses how the USA has developed a strong and diverse economy supported by advanced industries and rich natural resources. The service sector plays a major role, while manufacturing and agriculture remain important. The article also highlights the country's valuable resources like oil, coal, and natural gas, which contribute to energy independence and economic growth. Overall, the USA is a global economic leader due to its innovation, production, and resource management

Key words: economy, industry, production and natural resources, service sector, coal, oil, gas, innovation.

The Growth of industry in the USA:

By 1878 the United States had reentered a period of prosperity after the long depression of the mid-1870s. In the ensuing 20 years the volume of industrial production, the number of workers employed in industry, and the number of manufacturing plants all more than doubled. The exploitation of Western resources, including mines and lumber, stimulated a demand for improved transportation, while the gold and silver mines provided new sources of capital for investment in the East. The growth of industry in the United States was one of the most important changes in American history. It began in the late 18th century and continued to grow rapidly throughout the 19th and 20th centuries. Several key factors helped the USA become one of the most industrialized countries in the world, including access to natural resources, technological innovations, and a growing population. The first signs of industrial development appeared during the Industrial Revolution, which started in Great Britain

and later reached the United States. In the early 1800s, the first factories were built in the northeastern part of the country. These factories focused on textile production and were powered by water. Inventions like the cotton gin, created by Eli Whitney in 1793, increased production and efficiency in cotton processing. Later, the invention of the steam engine and the growth of railroads helped transport goods and raw materials more easily across the country. By the mid-19th century, American industry expanded quickly. The Civil War (1861–1865) played a role in encouraging industrial growth, especially in the North, where factories produced weapons, uniforms, and other military supplies. After the war, the United States entered a period known as the “Second Industrial Revolution.” During this time, industries such as steel, oil, and railroads became dominant. Famous industrialists like Andrew Carnegie (steel) and John D. Rockefeller (oil) played key roles in this growth. In the late 19th and early 20th centuries, cities grew rapidly as people moved from rural areas to work in factories. Immigrants from Europe also arrived in large numbers and provided labor for the growing industries. New technologies like electricity, the telephone, and later the assembly line (popularized by Henry Ford in automobile manufacturing) changed the way people worked and lived. By the mid-20th century, the USA had become a global industrial leader. American products were exported around the world, and the country became known for innovation and mass production. Even though the service sector has grown more in recent years, industry and manufacturing are still important parts of the U.S. economy today.

The Economy, industry, production, and natural resources of the USA: the United States of America has one of the most powerful and diverse economies in the world. It is known for its high level of productivity, innovation, and natural wealth. The U.S. economy is based on a capitalist system and is considered a mixed economy because both private businesses and the government play important roles in economic activities.

Economy

The U.S. economy is the largest in the world in terms of GDP (Gross Domestic Product). It includes a wide range of sectors such as services, manufacturing, agriculture, and technology. The service sector makes up the largest portion of the economy, including finance, healthcare, education, retail, and tourism. The United States is also a global leader in innovation, especially in areas like information technology, artificial intelligence, and biotechnology. Unemployment rates, inflation control, and stable economic policies have helped the U.S. maintain economic growth. American

companies like Apple, Microsoft, and Google have played a major role in shaping the global economy.

Industry

The U.S. has a highly developed industrial sector. Industrial growth began in the 19th century and expanded rapidly during the Second Industrial Revolution. Major industries include:

- Automobile industry – companies like Ford, General Motors, and Tesla.
- Aerospace industry – Boeing and Lockheed Martin are leading manufacturers of airplanes and defense systems.
- Electronics and technology – the U.S. is home to Silicon Valley, where many tech companies are based.
- Chemical and pharmaceutical industries – producing medicines, plastics, and industrial chemicals.
- These industries contribute significantly to exports, employment, and technological advancement.

Production

The United States is a major producer of many goods and services. It is one of the world's top producers of automobiles, airplanes, food, consumer electronics, and weapons. The U.S. is also known for its large-scale farming, which supplies food both to its population and to other countries through exports. Mass production techniques, especially the use of assembly lines (first popularized by Henry Ford), helped the U.S. become a leader in manufacturing. Today, automation and robotics are used in many factories to improve efficiency and quality.

Natural Resources

The United States is rich in natural resources, which have supported its economic and industrial development. Important resources include:

- Fossil fuels – coal, oil, and natural gas are found in many parts of the country. The U.S. is one of the world's top oil and gas producers.
- Minerals – gold, copper, iron ore, and uranium.
- Forests – the country has large forested areas, especially in the Pacific Northwest.
- Water – lakes, rivers, and underground water sources are vital for agriculture, industry, and daily use.

- Agricultural land – the U.S. has vast areas of fertile soil, making it a leading producer of corn, wheat, soybeans, and other crops.
- These resources are used wisely to support domestic needs and international trade.

The United States has a strong and well-balanced economic system supported by its powerful industries, high production capabilities, and abundant natural resources. Its focus on innovation, education, and infrastructure has helped it stay a global economic leader. The combination of all these factors makes the U.S. economy one of the most influential in the world today.

The Service Sector of the USA

The service sector is the largest part of the United States economy. It makes up about 75 to 80 percent of the country's Gross Domestic Product (GDP) and provides jobs for most Americans. Unlike industry or agriculture, the service sector does not produce physical goods. Instead, it provides services that help people and businesses in everyday life. One of the most important parts of the service sector is ***financial services***. This includes banks, insurance companies, and investment firms. For example, big banks like JPMorgan Chase and Bank of America help people manage money, save, and invest. New York City, especially Wall Street, is the financial center of the USA and one of the most important in the world. ***Healthcare and social services*** are also very important in the U.S. economy. Hospitals, clinics, and nursing homes provide medical care to millions of people. Doctors, nurses, and healthcare workers make up a large part of the American workforce. The healthcare industry in the USA is one of the most developed and spends more money than many other countries. Another big part of the service sector is ***education***. Schools, colleges, and universities help people learn and grow. The USA has some of the most famous universities in the world, like Harvard, MIT, and Stanford. Teachers, professors, and school staff all work in the education service sector. The ***retail and wholesale trade*** sector is also very large. Retail businesses, like Walmart, Amazon, and Target, sell goods directly to customers. Wholesale businesses sell goods in large amounts to stores or companies. Both are important for the economy and create many jobs. The ***tourism and hospitality*** industry is another big service area. People from around the world visit famous U.S. cities and natural places like the Grand Canyon, New York, and Las Vegas. Hotels, restaurants, airlines, and travel agencies are all part of this industry. The ***information and communication*** sector is growing fast. This includes the internet, social media, TV, and newspapers. Big American companies like Google, Meta (Facebook), and Netflix provide services used by people all over the world. Finally, ***public services*** such as police, firefighters,

teachers, and government workers also belong to the service sector. These services are often run by the government and help keep society safe and organized.

Coal, Oil, and Gas in the USA

Coal, oil, and natural gas are some of the most important natural resources in the United States. These fossil fuels have played a major role in the country's industrial growth and economic development for over a century. **Coal** was one of the earliest sources of energy used in the USA, especially during the 19th and early 20th centuries. It powered steam engines, trains, and factories, and was widely used for electricity generation. The United States has some of the largest coal reserves in the world, mainly located in states like Wyoming, West Virginia, and Pennsylvania. Although coal use has decreased in recent years due to environmental concerns, it is still an important part of the energy sector. **Oil** is one of the most valuable resources in the U.S. economy. The oil industry began in the late 1800s and expanded rapidly in the 20th century. Texas, Alaska, North Dakota, and the Gulf of Mexico are major oil-producing areas. The U.S. is one of the world's largest producers of oil and became a net exporter in recent years. Oil is used not only for fuel but also in the production of plastics, chemicals, and other industrial products. **Natural gas** is another key energy source. It is often found together with oil and is used for heating, electricity, and as an industrial fuel. Natural gas is considered a cleaner alternative to coal and oil because it produces less pollution. The United States has abundant natural gas reserves and is a top global producer. The development of shale gas through "fracking" has greatly increased production in the past two decades. These three fossil fuels have helped the USA become energy independent and economically strong. However, the country is also working on reducing dependence on them by investing in cleaner and renewable energy sources like solar and wind power.

Innovation

Innovation has always been a key part of the United States' economic and industrial success. From the invention of the light bulb to the development of the internet, the USA has led the world in creating new technologies, ideas, and solutions that improve everyday life and drive economic growth. During the 19th and 20th centuries, American inventors like **Thomas Edison** (light bulb), **Alexander Graham Bell** (telephone), and **Henry Ford** (assembly line in car production) changed how people lived and worked. These inventions helped industries grow and created millions of jobs. In the modern era, the USA continues to be a global leader in innovation, especially in fields like **technology, medicine, aerospace, artificial intelligence, and clean energy**. Companies like **Apple, Google, Microsoft, Tesla, and Amazon** are examples of how

innovation has shaped the economy. Silicon Valley in California is one of the most famous centers of technology and innovation in the world.

American universities and research centers also play a big role in supporting innovation. Institutions like *MIT*, *Stanford*, and *Harvard* work closely with industries to develop new technologies. The U.S. government supports innovation through funding programs and agencies like NASA and the National Science Foundation. Innovation helps make industries more efficient, creates new products, and opens up global markets. It also helps solve big problems, such as climate change, healthcare challenges, and communication barriers. That is why innovation is not only important for the U.S. economy, but also for the progress of the whole world.

Conclusion

The United States of America has built one of the most successful and influential economies in the world through a combination of strong industrial development, rich natural resources, innovative technologies, and a dominant service sector. Each of these elements has played an important role in shaping the country's growth and global leadership. The industrial sector, which experienced rapid growth since the 19th century, laid the foundation for America's rise as a global power. With industries like automobile manufacturing, aerospace, electronics, and chemicals, the U.S. became a center of production and technological advancement. This industrial strength allowed the country to create millions of jobs, support exports, and expand its economic influence. Natural resources such as coal, oil, and natural gas have provided the energy needed to power factories, homes, and transportation. The United States has made effective use of its natural wealth to support both domestic development and global trade. Although the country still relies on fossil fuels, it is now making efforts to invest in renewable energy to create a more sustainable future. The service sector is the largest contributor to the U.S. economy, accounting for over 75% of GDP. It includes vital industries like finance, education, healthcare, tourism, and information technology. The strength of this sector reflects the high level of development in American society and the country's ability to provide complex services to people around the world. Innovation has always been at the heart of America's success. From early inventions like the light bulb and telephone to modern breakthroughs in artificial intelligence and biotechnology, the USA has consistently led the way in science and technology. Research institutions, universities, and tech companies continue to shape the future by introducing new ideas and solutions to global challenges. The growth and stability of the United States can be attributed to its balanced use of natural resources, industrial power, service-based economy, and

commitment to innovation. These combined forces have made the USA not only a wealthy nation, but also a symbol of progress and development for the entire world.

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DEVELOPING METACOGNITIVE STRATEGIES FOR SPEAKING

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Abstract: In today's globalized world, the ability to speak a second language fluently is a highly valuable skill. Among the four major language skills—listening, reading, writing, and speaking—speaking is often regarded as the most difficult to master. This is because it requires learners to think, formulate sentences, and deliver them instantly in real-time. While many learners focus on expanding vocabulary and improving grammar, fewer pay attention to how they learn and how they manage their own speaking process. This is where metacognitive strategies play a vital role. Metacognition, which means "thinking about thinking," enables learners to plan, monitor, and evaluate their learning. When applied to speaking, metacognitive strategies help learners speak more confidently, identify problems, and improve their oral communication skills over time.

Key words: a metacognitive strategy, planning, monitoring, evaluating, feedback, speaking anxiety

A metacognitive strategy:

A metacognitive strategy is a method or technique that helps individuals become aware of and manage their own thinking and learning processes. The term "metacognition" comes from the Greek word meta (meaning "beyond" or "about") and the Latin word cognitio (meaning "knowledge"), and it literally means "thinking about thinking." In the context of language learning and speaking, metacognitive strategies are

used to plan, monitor, and evaluate one's performance in communication tasks. For example, before speaking, a learner might plan what they want to say, think about the vocabulary and grammar they need, or consider the structure of their message. This is called metacognitive planning. During the speaking task, they may monitor their speech in real time, checking for mistakes or making sure their message is clear—this is metacognitive monitoring. After speaking, they can evaluate how well they performed: Did they express their ideas clearly? Did they use appropriate language? What could be improved next time? This is known as metacognitive evaluation. Using metacognitive strategies helps learners become more independent, reflective, and effective communicators. These strategies encourage students to take responsibility for their own learning, identify their strengths and weaknesses, and actively seek ways to improve. As a result, learners not only become better speakers but also more confident and self-aware individuals.

Metacognitive strategies for speaking are usually divided into *three stages*: planning, monitoring, and evaluating.

Planning

Effective speaking begins well before a speaker utters a single word. The planning stage is a critical part of the metacognitive process, where learners actively prepare for communication by organizing their ideas, anticipating challenges, and setting goals for their speech. This stage lays the foundation for successful, confident, and fluent speaking. In the planning phase, learners first identify the purpose of their speech: Are they trying to inform, persuade, describe, or ask? Understanding the goal helps shape the content and tone of the message. Next, learners consider the topic and organize their thoughts logically. This may involve mentally sequencing ideas, grouping similar points, or deciding on an introduction, body, and conclusion—especially for longer forms of speaking like presentations or speeches. Another key aspect of planning is language preparation. Learners can think about the vocabulary and grammar structures they will need, as well as useful phrases or expressions for introducing points, transitioning between ideas, or concluding. For example, phrases like “First of all,” “On the other hand,” or “In conclusion” can help maintain coherence and clarity. Effective planning

also involves anticipating the listener's needs. This means considering the audience's background knowledge, likely questions, or possible misunderstandings. A skilled speaker will prepare ways to explain complex terms or clarify ideas if needed. Anticipating listener reactions helps the speaker feel more in control and better equipped to handle unexpected situations. Additionally, learners may rehearse mentally or out loud, either alone or with a peer. They might make brief notes or outlines, especially when preparing for formal situations like classroom presentations, interviews, or debates. Practicing pronunciation, intonation, and stress patterns also falls into this stage and can greatly enhance fluency and listener comprehension. Planning helps reduce anxiety and boost confidence. When learners know what they want to say and how they will say it, they are less likely to panic, get stuck, or lose their train of thought. This results in smoother delivery, better performance, and more positive speaking experiences. Planning is not just about thinking ahead; it is about strategically preparing the content, language, and delivery of one's speech. It transforms speaking from a spontaneous act into a well-structured, goal-oriented process.

Monitoring

Once a learner begins speaking, the role of metacognition does not stop — it continues through the process of monitoring, which is the act of consciously observing and regulating one's speaking performance in real-time. Monitoring allows the speaker to stay aware of how well they are communicating, enabling them to make immediate adjustments to improve clarity, accuracy, and fluency. During this stage, learners may ask themselves internal questions such as:

- Am I using the correct grammar?
- Is my pronunciation understandable?
- Am I speaking too quickly or too slowly?
- Do my listeners seem confused or engaged?

These questions reflect an active form of self-awareness, where the speaker is not only focusing on the content of the message but also on how it is being delivered. Unlike passive speaking, where words flow without much reflection, monitored speech is intentional and adaptive. If learners notice that they are making grammatical mistakes, they may attempt self-correction. For example, after saying “He go to school,” a learner might quickly revise it to “He goes to school.” Similarly, if they realize their pronunciation is unclear, they may slow down, articulate more carefully, or stress important words. This level of awareness helps to avoid miscommunication and keeps the conversation flowing smoothly. Monitoring also enables learners to respond flexibly to unexpected problems. If a speaker forgets a specific word, they might use paraphrasing — explaining the idea in another way or using simpler vocabulary. For instance, instead of saying “environmentally friendly,” they might say “good for nature.” This skill is particularly important in second language speaking, where vocabulary gaps or nervousness can easily disrupt communication. In conversations, monitoring also includes reading the listener’s cues — such as facial expressions, gestures, or verbal feedback — and adjusting accordingly. If a listener looks confused, the speaker might rephrase or explain their point differently. This interactional awareness enhances the effectiveness of communication and demonstrates empathy and attentiveness. Moreover, skilled speakers often monitor not just what they say, but also how they say it — paying attention to intonation, stress, rhythm, and body language. These elements add meaning beyond words and help the speaker convey emotions, emphasis, and intentions more effectively. It is important to note that monitoring is a skill that develops with practice. Beginners may find it difficult to speak and reflect at the same time. However, through repeated speaking tasks, feedback, and self-reflection, learners can become more efficient at noticing and correcting their own errors while speaking. Monitoring empowers learners to take charge of their speech in real time. It encourages flexibility, fosters self-correction, and builds communicative competence. Far from being a passive

process, effective speaking involves constant internal checking and adjustment — and this is exactly what monitoring enables.

Evaluating

Once the speaking task is completed, the evaluation stage becomes crucial in helping learners reflect on their performance and understand what went well and what areas need improvement. This step is a fundamental part of the metacognitive cycle, as it encourages self-reflection and supports learners in setting goals for continued growth in their speaking abilities. In this phase, learners engage in reflective thinking, assessing whether they achieved their communication objectives. For instance, they might ask themselves questions like:

- Did I manage to convey my ideas clearly and effectively?
- Did my listeners understand the message I intended to share?
- Were there any moments where I hesitated, stumbled, or felt lost for words?

By evaluating these aspects, learners can identify the strengths of their speaking performance, as well as the weaknesses. They might notice that certain vocabulary was used effectively, or that they successfully managed to stay on topic. On the other hand, they may recognize that certain phrases or grammar structures need more practice or that they were speaking too fast, causing misunderstandings. An important aspect of evaluating is being honest and constructive about one's performance. This self-assessment encourages a growth mindset—the idea that speaking skills can always be improved with practice, effort, and reflection. Learners should feel empowered by their successes and motivated by the areas that need work. For example, if they realize they had difficulty with pronunciation, they can make it a goal to focus on specific sounds in future speaking exercises.

There are several effective ways for learners to conduct this evaluation:

1. Language journals: Writing about their experience in a journal allows learners to articulate what went well, what could be improved, and how they felt during the speaking activity. This process reinforces their self-awareness and offers a record to track progress over time.

2. Recording and listening to speech: Another valuable strategy is recording their speaking and then listening to it afterward. This helps learners hear themselves objectively, notice areas for improvement, and recognize their progress. It also provides insight into aspects they may not have been consciously aware of while speaking, such as pacing, clarity, and use of filler words like “um” or “uh.”

3. Seeking feedback: Learners can also ask for feedback from peers, teachers, or mentors. Receiving external perspectives can offer new insights into areas that might not be apparent during self-evaluation. For example, a teacher might point out that the learner’s use of connectors (e.g., “therefore,” “however”) could be improved to enhance fluency, or a peer might suggest practicing certain vocabulary to sound more natural.

Additionally, evaluating non-verbal communication can be just as important as assessing verbal language. Learners might reflect on their body language, eye contact, tone of voice, and overall engagement with the listener. Were they confident and assertive? Did their gestures complement their words? These elements play a critical role in effective communication and should be considered in the evaluation process. Evaluation also involves setting specific, actionable goals for improvement. After reflecting on what went well and what could be better, learners should establish concrete steps to work on these areas in future speaking tasks. For instance, if they identified that they often hesitated or lacked fluency, they could set a goal to practice speaking more spontaneously in everyday situations, or work on specific pronunciation exercises. Ongoing evaluation helps learners see their progress over time. By consistently reflecting on their speaking performances, they can track improvements, adapt their

strategies, and celebrate their achievements. Over time, these evaluations encourage learners to become more independent, confident, and skilled speakers.

The Role of Teachers and Feedback

Teachers play a critical role in helping students develop metacognitive strategies for speaking. A teacher's ability to model these strategies and provide feedback helps learners see the value of reflective learning. For instance, by encouraging students to think about their own thinking, teachers can foster a more self-directed approach to language learning. One effective method is to provide learners with opportunities to self-assess their speaking, either through structured activities or informal discussions. By doing so, learners can become more engaged in their own progress, thus increasing their motivation. Moreover, teachers can design activities that explicitly promote metacognition, such as peer reviews, reflective journaling, or group discussions where students are asked to identify their strengths and areas for improvement.

Overcoming Speaking Anxiety

One of the most significant barriers to speaking a second language is anxiety. Many learners fear making mistakes, which can lead to avoidance of speaking tasks. Metacognitive strategies can help reduce this anxiety. By encouraging learners to focus on their own process and progress, rather than fearing judgment, they can become more relaxed in real-world conversations. Planning in advance allows students to feel more prepared, and monitoring helps them stay aware of their mistakes without feeling overwhelmed. Evaluation after speaking can help normalize mistakes as part of the learning process, allowing students to see each conversation as an opportunity for improvement rather than a potential failure. Metacognitive strategies are especially useful for learners who experience anxiety or low confidence when speaking. By breaking down the speaking process and focusing on self-regulation, these strategies can reduce stress and increase motivation. Furthermore, teachers play a critical role in

helping students develop these skills. They can introduce reflective activities, model how to plan and evaluate, and provide consistent feedback that encourages growth.

Conclusion

Metacognitive strategies are powerful tools for language learners aiming to improve their speaking abilities. Through planning, learners prepare their ideas and reduce uncertainty. By monitoring, they stay aware of their language use and adapt as needed. Evaluating allows them to reflect and learn from each speaking experience. These strategies promote independence, build confidence, and lead to more effective communication. When practiced regularly, they turn speaking into a more conscious and controlled process, helping learners become more successful and fluent speakers over time. Whether in academic, social, or professional settings, metacognitive strategies provide a clear path toward mastering the art of speaking in a second language. Additionally, the role of teachers and regular self-reflection can significantly enhance learners' ability to use these strategies effectively, leading to lasting improvements in their speaking skills.

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LIPITENSION: A DOUBLE BLOW TO THE HEART AND BLOOD VESSELS

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Abstract. The purpose of this study was to assess the clinical and laboratory features of lipitension in patients treated at the clinic of the Bukhara State Medical Institute. The study included 74 patients with arterial hypertension, of whom 38 had concomitant dyslipidemia (lipitension). Comparative analysis showed that patients with lipitension more frequently exhibited obesity, elevated levels of total cholesterol, LDL, triglycerides, as well as higher blood pressure and signs of left ventricular hypertrophy. The obtained data emphasize the need for early diagnosis and a comprehensive treatment strategy for lipitension.

Keywords: arterial hypertension, dyslipidemia, lipitension, left ventricular hypertrophy, cardiovascular risk.

LIPITENSIYA: YURAK VA QON TOMIRLARGA IKKI KARRA ZARBA

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Annotatsiya. Ushbu tadqiqotning maqsadi — Buxoro Davlat Tibbiyot Instituti klinikasida davolangan bemorlarda lipitensiyaning klinik va laborator belgilari baholashdan iborat. Tadqiqotda arterial gipertenziyaga chalingan 74 bemor ishtirok etdi, ularning 38 nafarida dislipidemiya (lipitensiya) kuzatildi. Taqqoslov tahlil natijalariga ko'ra, lipitensiyali bemorlarda semizlik, umumiy xolesterin, LDL, triglitseridlar darajalarining oshishi, arterial bosimning yuqoriligi va chap qorincha gipertrofiyasi belgilari ancha ko'p uchradi. Olingan ma'lumotlar lipitensiyani erta aniqlash va uni kompleks davolash zarurligini ko'rsatadi.

Kalit so'zlar: arterial gipertenziya, dislipidemiya, lipitensiya, chap qorincha gipertrofiyasi, yurak-qon tomir xavfi.

«ЛИПИТЕНЗИЯ: ДВОЙНОЙ УДАР ПО СЕРДЦУ И СОСУДАМ»

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Аннотация. Цель исследования — оценка клинико-лабораторных особенностей липитензии у пациентов, наблюдавшихся в клинике Бухарского государственного медицинского института. В исследование были включены 74 пациента с артериальной гипертензией, из которых 38 имели сопутствующую дислипидемию (липитензия). Сравнительный анализ показал, что у пациентов с липитензией чаще наблюдались ожирение, повышенные уровни общего холестерина, ЛПНП и триглицеридов, а также более высокое артериальное давление и признаки гипертрофии левого желудочка. Полученные данные подчеркивают необходимость ранней диагностики и комплексного подхода к лечению липитензии.

Ключевые слова: артериальная гипертензия, дислипидемия, липитензия, гипертрофия левого желудочка, сердечно-сосудистый риск.

Введение. Сердечно-сосудистые заболевания (ССЗ) продолжают занимать ведущее место в структуре общей смертности как в мире, так и в странах Центральной Азии, в частности — в Республике Узбекистан. По данным Министерства здравоохранения Узбекистана, в 2023 году доля ССЗ составила 57,2 % от всех зарегистрированных случаев смерти населения [1]. Эти заболевания не только определяют уровень смертности, но и значительно влияют на трудоспособность, качество жизни и структуру затрат системы здравоохранения. Особенно опасными являются сочетания нескольких факторов риска, усиливающих друг друга. Одним из таких состояний является липитензия — совокупность артериальной гипертензии и нарушений липидного обмена (дислипидемии), которая обладает синергетическим патогенетическим и прогностическим значением.

По данным STEPS-исследования, проведённого ВОЗ в Узбекистане в 2019 году, среди взрослого населения в возрасте 18–69 лет:

- 26,2 % имеют артериальную гипертензию;
- 11,5 % страдают ожирением;
- 53 % имеют повышенный уровень холестерина липопротеинов низкой плотности (ЛПНП) [2].

При этом сопутствующее наличие гипертонии и гиперхолестеринемии диагностируется более чем у трети лиц старше 45 лет. Согласно отдельным наблюдениям, у женщин распространённость гипертонии превышает аналогичный показатель у мужчин (53 % против 47 %), что может быть связано с гормональными изменениями в период менопаузы, ожирением и малоподвижным образом жизни [3].

Липитензия — это не просто совокупность двух диагнозов, а особое патологическое состояние, в котором гипертензия и дислипидемия взаимно отягощают течение друг друга. Избыточные концентрации холестерина, особенно ЛПНП и триглицеридов, провоцируют поражение эндотелия сосудов, снижение эластичности сосудистой стенки и усиление вазоконстрикции, что повышает артериальное давление. В то же время длительная гипертония способствует микротравмам сосудистой стенки, создавая условия для ускоренного формирования атеросклеротических бляшек. Таким образом, создаётся замкнутый патологический круг, ведущий к быстрому прогрессированию ишемической болезни сердца, цереброваскулярной недостаточности и хронической сердечной недостаточности.

В опубликованных в 2022 году данных Европейского общества кардиологов подчёркивается, что у пациентов с сочетанием гипертонии и дислипидемии риск инсульта и инфаркта миокарда возрастает более чем в 4 раза по сравнению с пациентами, имеющими только один из этих факторов [4]. Особенно важно учитывать это при разработке стратегий первичной и вторичной профилактики сердечно-сосудистых осложнений в таких странах, как Узбекистан, где наблюдается эпидемия метаболических заболеваний.

Отдельного внимания заслуживает влияние липитензии на развитие сахарного диабета 2 типа. Согласно Национальному регистру Узбекистана, распространённость СД2 среди лиц старше 35 лет превышает 7,9 %, при этом до 70 % этих пациентов имеют как гипертонию, так и нарушения липидного обмена [5]. Данная триада факторов (гипертония, дислипидемия и гипергликемия) формирует клинический фенотип метаболического синдрома и резко увеличивает риск поражения органов-мишеней (сердце, мозг, почки, сосуды).

Ожирение, особенно абдоминальное, играет ведущую роль в развитии липитензии. Увеличение индекса массы тела на каждые 5 кг/м² ассоциировано с повышением риска развития артериальной гипертензии на 49 % и дислипидемии на 33 % [6]. В условиях Узбекистана распространённость ожирения среди женщин

превышает 12 %, а гиподинамия наблюдается у более чем 60 % взрослого населения, особенно в городских районах [2].

Состояние липитензии требует особого внимания со стороны врачей первичного звена. Однако, по результатам исследования, проведённого в 2021 году, только 43 % пациентов с гипертонией получают препараты, корректирующие липидный обмен, и лишь 18 % достигают целевых значений артериального давления и холестерина ЛПНП одновременно [7]. Это говорит о необходимости пересмотра тактики лечения и активного применения комбинированной терапии, включая статины, ингибиторы АПФ, блокаторы рецепторов ангиотензина II и другие средства.

Также необходимо отметить недостаточную информированность пациентов о взаимосвязи гипертонии и нарушений липидного обмена. По результатам опроса, проведённого среди 1500 пациентов в г. Ташкенте, лишь 28 % знали о наличии у них дислипидемии, а только 12 % регулярно контролировали уровень липидов в крови [8]. Это требует внедрения просветительских программ и усиления профилактической направленности амбулаторной службы.

Таким образом, липитензия представляет собой важную клинко-эпидемиологическую проблему в Республике Узбекистан, требующую комплексного подхода: от активного скрининга и ранней диагностики до многокомпонентной терапии и профилактики. Выработка национальных рекомендаций по диагностике и лечению липитензии, адаптированных к реальным условиям здравоохранения страны, может стать ключевым шагом в снижении сердечно-сосудистой смертности и улучшении качества жизни населения.

Материалы и методы исследования. Исследование проводилось на базе клиники Бухарского государственного медицинского института имени Абу Али ибн Сино в период с декабря 2024 года по апрель 2025 года. Исследование соответствовало требованиям Хельсинкской декларации и было одобрено локальным этическим комитетом. Все пациенты дали письменное информированное согласие на участие.

Исследование носило проспективный сравнительный характер. Основной целью являлось изучение клинко-лабораторных особенностей липитензии — сочетания артериальной гипертензии и дислипидемии — у амбулаторных пациентов.

В исследование были включены 74 пациента в возрасте от 35 до 70 лет (средний возраст — $54,6 \pm 8,2$ лет). Из них 39 (52,7 %) — женщины, 35 (47,3 %) — мужчины.

— мужчины. Пациенты были разделены на две группы: Группа I (основная) — 38 пациентов с диагностированной липитензией (сочетание артериальной гипертензии и дислипидемии); Группа II (контрольная) — 36 пациентов с изолированной артериальной гипертензией, без нарушений липидного обмена.

Критерии включения:

1. Возраст от 35 до 70 лет;
2. Постоянное наблюдение в клинике в течение не менее 3 месяцев;
3. Для группы I: наличие АГ (АД $\geq 140/90$ мм рт. ст.) и дислипидемии (общий холестерин $> 5,0$ ммоль/л и/или ЛПНП $> 3,0$ ммоль/л);
4. Для группы II: наличие АГ без признаков дислипидемии;
5. Согласие на участие.

Критерии исключения:

1. Вторичная гипертензия;
2. Эндокринные заболевания (например, тиреотоксикоз);
3. Хронические заболевания печени и почек в стадии декомпенсации;
4. Беременность и лактация;
5. Прием гиполипидемических препаратов менее чем за 3 месяца до исследования.

Методы обследования: Анкетирование и сбор анамнеза: возраст, пол, длительность АГ, наличие ССЗ в анамнезе, образ жизни, вредные привычки. Измерение артериального давления: проводилось трижды на правой руке после 5 минут покоя, с интервалом в 1–2 минуты, с использованием механического тонометра. Антропометрические показатели: рост, масса тела, ИМТ, окружность талии. Биохимические анализы: оценка уровня общего холестерина, ЛПНП, ЛПВП, триглицеридов, глюкозы крови натощак. Инструментальные методы: ЭКГ (оценка признаков гипертрофии миокарда), эхокардиография по показаниям.

Диагноз "липитензия" устанавливался при сочетании устойчивой гипертензии с любым типом дислипидемии (гиперхолестеринемия, гипертриглицеридемия).

Результаты исследования. Результаты и их обсуждение

В результате анализа клинико-лабораторных данных у 74 пациентов, разделённых на две группы, были получены следующие результаты.

1. Демографические и общие характеристики

Средний возраст пациентов в группе с липитензией (Группа I) составил $56,3 \pm 7,4$ лет, что статистически значимо выше, чем в группе с изолированной АГ (Группа II) — $52,9 \pm 8,5$ лет ($p = 0,048$). Женщины преобладали в обеих группах,

однако статистически значимой разницы по полу не отмечено ($p > 0,05$). Индекс массы тела (ИМТ) был значительно выше в группе I — $29,8 \pm 3,2$ кг/м² по сравнению с $26,5 \pm 2,9$ кг/м² в группе II ($p < 0,01$), что указывает на более выраженное ожирение при сочетании гипертензии и дислипидемии. Окружность талии также была увеличена в основной группе, подтверждая наличие абдоминального ожирения — одного из компонентов метаболического синдрома.

2. Липидный спектр: Пациенты с липитензией имели достоверно более высокие уровни: Общего холестерина — $6,4 \pm 1,1$ ммоль/л против $4,9 \pm 0,8$ ммоль/л ($p < 0,001$), ЛПНП — $4,1 \pm 0,9$ ммоль/л против $2,8 \pm 0,7$ ммоль/л ($p < 0,001$), Триглицеридов — $2,1 \pm 0,6$ ммоль/л против $1,4 \pm 0,4$ ммоль/л ($p < 0,001$). При этом уровень ЛПВП был значительно ниже — $1,0 \pm 0,2$ ммоль/л в группе I против $1,3 \pm 0,3$ ммоль/л в группе II ($p < 0,01$). Эти данные согласуются с результатами других исследований, указывающих на атерогенный профиль липидов у пациентов с липитензией, что значительно увеличивает риск сердечно-сосудистых осложнений (Kearney et al., 2005; Yusuf et al., 2004).

3. Артериальное давление: Среднее систолическое АД в группе I было выше — 151 ± 12 мм рт. ст., чем в группе II — 145 ± 11 мм рт. ст. ($p = 0,034$). Диастолическое давление также оказалось выше в основной группе: 96 ± 8 мм рт. ст. против 92 ± 7 мм рт. ст. в контрольной ($p = 0,041$). Это может указывать на более выраженное поражение сосудистого русла у пациентов с комбинированной патологией.

4. Сердечно-сосудистые изменения: На ЭКГ признаки гипертрофии левого желудочка (ГЛЖ) регистрировались в 68,4 % случаев в группе I и лишь в 36,1 % в группе II ($p = 0,007$). Это подтверждает более выраженную ремоделировку миокарда у пациентов с липитензией.

Эхокардиографически в подгруппе пациентов, которым проводилось УЗИ сердца, у больных с липитензией чаще выявлялась диастолическая дисфункция и утолщение стенок левого желудочка, что свидетельствует о более высоком риске развития сердечной недостаточности даже при сохраненной фракции выброса.

Заключение. Проведенное исследование продемонстрировало, что липитензия — сочетание артериальной гипертензии и нарушений липидного обмена — представляет собой клинически значимую форму сердечно-сосудистой патологии с повышенным риском поражения органов-мишеней и развития сердечно-сосудистых осложнений. У пациентов с липитензией отмечаются достоверно более высокие значения артериального давления, массы тела, а также выраженные изменения липидного спектра, характеризующиеся повышением

уровней общего холестерина, ЛПНП и триглицеридов при снижении ЛПВП. Эти нарушения сопровождаются увеличением частоты гипертрофии левого желудочка и признаков ремоделирования миокарда. Полученные данные подтверждают необходимость раннего выявления липитензии и комплексного подхода к ведению таких пациентов. Терапия должна включать не только антигипертензивные средства, но и препараты, нормализующие липидный обмен (статины, фибраты), а также немедикаментозные меры: коррекцию питания, снижение массы тела, повышение физической активности и отказ от вредных привычек.

Таким образом, липитензия требует отдельного внимания как самостоятельный клинический фенотип, ассоциированный с высоким сердечно-сосудистым риском, что должно учитываться при разработке тактики лечения и профилактики осложнений у данной категории больных.

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TIBBIYOT TERMINOLOGIYASIDA BA'ZI LOTINCHA ATAMALAR KELIB CHIQISHINING METAFORIK XUSUSIYATLARI

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Abstract: Ushbu maqolada tibbiyot terminologiyasida bazi lotincha atamalar kelib chiqishining metaforik xususiyatlari, tibbiyotga oid terminlarning lingvistik xususiyatlari, o'ziga xosligi, tarjima mexanizmi haqida ma'lumotga ega bo'lishingiz mumkin.

Kalit so'zlar: lingvopragmatika, pragmatika, tilshunoslik, termin, atama, metod, chet tili, nutq, til vositalari, matn, og'zaki nutq, lingvistika, tarjima, xususiyat, mexanizm, abbrevatsiya, metafora va boshqalar.

Lotin tili — tibbiyot mutaxassisligini o'qitishning ajralmas elementi bo'lgan kasbiy yo'naltirilgan fan. Tibbiy atamalar lotin tilida ishlatiladigan ko'plab metaforalar bilan ajralib turadi. Ular atrofdagi voqelikni, uning milliy, ijtimoiy va kasbiy farqlarini his qilishning umuminsoniy qoidalarini aks ettiradi.

Tibbiyot terminologiyasi butun tibbiyot tarixi davomida yaratilgan va tibbiyot fani bilan parallel ravishda rivojlanishda davom etmoqda. Har bir mutaxassis, mutaxassisligidan qat'i nazar, doimiy ravishda yangilanib turadigan va yangi yaratilgan professional tildan to'g'ri foydalanishi va muayyan atamalarning paydo bo'lishini belgilaydigan qoidalar va qonunlarni

tushunishi kerak. Har qanday mamlakat tibbiyot xodimlari o'z ona tili asosida paydo bo'lgan atamalar bilan bir qatorda qadimgi yunon va lotin tillari asosida paydo bo'lgan ko'plab xalqaro, umume'tirof etilgan atamalardan foydalanadilar. Ushbu atamalar tabiatan universal bo'lib, umumiy foydalanishga kirgan va ularning millatidan qat'i nazar, mutaxassislar uchun tushunarli. Bunday xalqaro atamalar har qanday davlatda, shu jumladan, Rossiyada hamda ispan tilida so'zlashuvchi mamlakatlarda tibbiyot fanining asosiy fondini tashkil qiladi.

Tibbiyot terminologiyasida keltirilgan semantik o'zgarishlar bu borada ko'rsatkichdir. Tibbiyotda metaforik atamalarning mavjudligi, inson tanasi tuzilishining o'zi atrofdagi voqelik bilan assotsiativ aloqalarni va metaforik nomlarning paydo bo'lishiga yordam beradigan tarzda yaratilganligi bilan oqlanadi. Ma'lumki, metaforik atamalarni yaratish uchun asl ma'nodan sezilarli darajada farq qiladigan yangi semantik ma'no va aniqlikka ega bo'lishi mumkin bo'lgan obyektva hodisalar ishlatiladi.

Tibbiy terminologiyada metaforik uzatishning odatiy rus tilidagi modellari qo'llaniladi. Taqqoslash, bu – asosan, obyektlarning vizual tavsiflaridir (konfiguratsiyasi, o'lchamlari, rang berishi). Tibbiyot terminologiyasining metaforik tizimi an'anaviylik va dinamizmni birlashtiradi: *membrana* (oyoq-qo'llar), *palatum* (tanglay) yoki *brachium* (yelka). Kuzatishlarimizga ko'ra, tibbiy terminologiyada eng keng tarqalgani — tovush belgilariga ega bo'lgan zoomorfik metafora bo'lib, ular hayvonot dunyosiga xos bo'lib, shartli ravishda odamning jismoniy holatiga o'tadi va turli alomatlar va kasalliklar tavsifida uchraydi: *sichqonning chiyillashi*, *xirillashi*, *mushuk yig'lash sindromi* va boshqalar. Qushlar, yashash joylari va hasharotlar nomlari ham tibbiyot terminologiyasida keng

assotsiativ sferaga ega: *g'oz terisi*, *qush yuzi*, *baliq og'zi* va boshqalar. Taqdim etilgan metaforalar yangi ma'no kasb etadi. Keyingi guruh antropomorfik metafora bo'lib, uning manbayi – odamlarning fiziologik xususiyatlari, tana a'zolarining nomlari va tirik organizmning xususiyatlari. Antropomorfik metaforalarga individ tanasining qismlari va hayvonlar tanasining, ularning ichki a'zolarining nomlarini aks ettiruvchi atamalar kiradi: *laringeal qorincha*, egarning orqa qismi va boshqalar.

Tibbiy atama ixcham, aniq va bir ma'noli bo'lishi uchun uni tuzishda quyidagi talablarga rioya qilish kerak: adekvatlik (uning mazmuni ushbu obyekt haqidagi zamonaviy ilmiy bilimlarga mos kelishi kerak); aniqlik (tarkibiy tushuncha o'z mazmuni va ko'lami bo'yicha berilgan terminologiya tizimining boshqa tushunchalaridan keskin farq qilishi kerak); yagona ma'noga egalik (har qanday atama faqat bitta tushunchaga mos kelishi kerak, har qanday tushuncha faqat bitta atamaga mos kelishi kerak).

Tibbiyotga oid terminologiya:

1) elementlarning xilma-xilligi:

morbus, *i m* — *enfermedad* — kasallik;

concrementum; *lithus*, *i m* — *cálculo* — vena tomiri toshi;

proctologus, i m — proctólogo — to‘g‘ri ichak kasalliklari bo‘yicha mutaxassis;

phthisiater, tri, m — tisiólogo — kasalliklar va sil kasalligining oldini olish bo‘yicha shifokor-mutaxassis;

gastralgia, ae f — dolor estomacal; gastralgía — oshqozon og‘rig‘i;

cardiopathia, ae f — cardiopatía — umumiy yurak kasalligi;

lupus vulgaris, lupi vulgaris m — lupus — vulgaris qizil yuguruk;

2) kasalliklarning oldini olish, diagnostika qilish bilan bog‘liq jarayonlar, hodisalar, bemorlarni tekshirish va davolash usullari:

leucocytus, i m — leucocito — oq qon hujayralari;

laryngitis, itidis f — laringitis;

angina laríngea — halqumning yallig‘lanish kasalligi;

osteomielit, itidis f — osteomelit — suyak iligining yallig‘lanishi;

pnevmoniya, ae f — pnevmoniya — o‘pkaning yallig‘lanishi;

xondrogenez, f — concreción — haftaga tushadigan to‘qimalarda toshlar hosil bo‘lishi;

gastroptoz, f — gastroptoz — oshqozon prolapsasi;

3) operatsiyalarning nomlari, tekshirish va davolash usullari, tibbiy asboblari, jihozlar:

xoletsistektomiya, ae f — koletsistektomiya — o‘t pufagini olib tashlash;

stomatoskopiya, ae f — estomatoskopiya — og‘iz bo‘shlig‘ini maxsus optik asboblari yordamida tekshirish;

gemostaz, f — gemostaz — qon ketishining to‘xtashi/to‘xtab qolishi;

pnevmoliz, f — separación de la luz a partir de los tejidos adyacentes — o‘pkaning qo‘shni to‘qimalardan ajralishi;

blefarotomiya, ae f — blefarotomiya — ko‘z qovog‘ining kesilishi;

rhinoplastica, ae f — rinoplastia — burunning plastik jarrohligi.

Ushbu misollar lotincha tibbiyotga oid atamalar nomlarining ispan tilining tibbiyotga oid atamalari bilan va transliteratsiya qilingan imloni hisobga olgan holda rus tilidagi tibbiyotga oid terminologiya bilan deyarli to'liq fonetik mos kelishini ko'rsatadi. Ispan tibbiy lug'atini yozishga kelsak, ispan tili grammatikasini yozish qoidalariga rioya qilish bilan bog'liq o'zgarishlarni kuzatish mumkin. Masalan: ispan tilida lotin tilidan farqli ravishda ae, oe, th, rh, ch, ph digraflari mavjud emas. Yozishda ular mos ravishda a, e unlilari va *t, r, j, f* fundoshlari bilan almashtiriladi.

Shuningdek, logiya, opiya/opsiya, ektomiya, stomiya, tomiya, patiya, grafiya,

termiya, trofiya, foniya va boshqalar kabi tibbiyotga oid yakuniy atama elementlarida stress, qoida tariqasida, *ía* diftongiga tushadi va shunga mos ravishda, grafik urg'u bilan yozilgan. Ammo barcha tibbiyotga oid atama elementlari oxirgi bo'g'inga *-ía* diftongi bilan urg'u qo'yish qoidasiga amal qilmaydi. Shunday qilib, lotincha tibbiyotga oid yakuniy atama elementi *-rrhaphia*, tikish jarayonini bildiradi (*glossorrhaphia* — tilni tikish) ispan tilida so'nggi bo'g'inga (*glosorrhafia*) urg'u bilan rrafia sifatida eshitiladi. Yana bir keng tarqalgan misol “davolash” degan ma'noni anglatuvchi element *therapia* atamasi bo'lib, asosiy urg'u ushbu elementning “davolash (bilan)” ma'nosida ishlatilishiga qaratilgan. Ispan tilida, odatda *-ía* tugashiga qaramay, so'zdagi urg'u oxirgi bo'g'inga tushadi va shunga mos ravishda u grafik urg'usiz yoziladi. Masalan: balneoterapiya – suv protseduralari (vannalar) bilan davolash, kinesiterapiya - fizika terapiyasi, ya'ni harakat terapiyasi (*kinesia* — harakat, jismoniy faoliyat).

Ushbu tadqiqotning dolzarbligi shubhasizdir, chunki zamonaviy dunyo tibbiyot xodimi kasbiy mavzuda muloqot qilishda lotincha atama va metaforalarning 60% dan ortig'ini ishlatadi. Bularning barchasi lotin tilining lug'at va so'z yasash imkoniyatlaridan faol foydalanish hisobiga fanning barcha turlaridagi iboralar to'ldirilib borilganligi bilan bog'liq.

Etimologik kuzatishlar asosida atamalarning 5 ta asosiy guruhi taqdim etildi: rang turlariga asoslangan atamalar; hayvonlar tasvirida shakllangan zoomorf atamalar; muayyan harakatga asoslangan atamalar; antic mifologiyadan ismni o'z ichiga olgan atama-mifologizmlar, shuningdek, Anthrax (kuydirgi) “*sibir yarasi*” — yunoncha: anthrax “*ko'mir*”, bu “*teri kuydirgisi*” — terining qaynashga o'xshash jarohati bo'lib, oxir-oqibat qora ko'mir markaziga ega bo'lgan yarani hosil qiladi” deb izohlanadi tashqi belgilarning o'xshashligiga asoslangan atamalar.

1. Rang turlariga asoslangan atamalar. Asosan, bu atamalar guruhi teri kasalliklari nomlari bilan ifodalanadi, buning natijasida terining tuzilishi va rangi o'zgaradi.

Cyanosis (siyanoz) “siyanoz” — terining mavimsi – qizil rangi, terining va shilliq pardalarning ranglanishi – yunon tilidan kyaneos “to‘q ko‘k”.

Xanthoma sarg‘ish rangga ega fibroma — yunoncha xanthos “sariq”.

Melaena “melena” — qizilo‘ngach, oshqozon va yuqori ichaklarda qon ketish paytida shakllanmagan qora najasning chiqishi — yunoncha. melaina “qora”.

Leykoderma — teridagi oq dog‘lar — yunoncha leykos “oq” va derma “teri”.

Eritema “eritema” — dermis tomirlarining kengayishi natijasida yuzaga keladigan terining cheklangan qizarishi erithros “qizil”.

Cirrhosis “tsirrozi” — alomatlardan biri shundaki, jigar qizil rangga ega — yunoncha *kirrhos sariq, qizil*.

2. Hayvonlar tasvirida shakllangan zoomorf atamalar. Tibbiyotga oid terminologiyada zoomorf atamalarning mavjudligi hayvonlarning qismlari va organlari bilan o‘xshashliklar aniqlanganda, inson tanasini tabiatning bir qismi sifatida konsepsiyalash haqida gapirishga imkon beradi.

Pectus carinatum “tovuq ko‘kragi” – raxitik ko‘krak – latdan. pektus “ko‘krak” va karina “qushlarda kiel” .

Leontiasis “Leontiaz” – yunoncha moxovli bemorning yuzini sherga o‘xshash tasviri – yunoncha leon “sher”.

Scrofulosis ‘scrofula’ – bachadon bo‘yni limfa tugunlarining tuberkulyoz yallig‘lanishi, bo‘yin cho‘chqaga o‘xshab qalin va bema‘ni bo‘lib qoladi. Scrofa ‘cho‘chqa’.

Ichthyosis — terining g‘ayritabiiy keratinizatsiyasi, teri tarozi ko‘rinishini oladi — yunoncha ichthyos “baliq”.

Tashqi belgilardagi o‘xshashlikka asoslangan metafora atamalar

guruhi. Xususan, bu toifa teri kasalliklariga tegishli.

Carbunculus — soch follikulalari va yog‘ bezlari guruhi atrofida teri va teri osti to‘qimalarining o‘tkir yiringli-nekrotik yallig‘lanishi;

yiringli yallig‘lanish bosqichida infiltrat markazida qora nekroz zonasi hosil bo‘ladi,

bu lotincha, karbo “ko‘mir” dan deminitivdir.

Hordeolum — “Ko‘z qovog‘idagi arpa” — kirpikning soch follikulasining yoki Zeiss yog‘ bezining o‘tkir yiringli yallig‘lanishi bo‘lib, u kiprik lampochkasi yaqinida joylashgan “arpa” lotincha “hordeum” dan deminitivdir.

Ascites “*assit*” — qorin bo‘shlig‘ida erkin suyuqlikning to‘planishi — yunoncha ascos “suyuqlik sumkasi”.

Cysta “*kist*” — to‘qimalar yoki organlardagi patologik bo‘shliq; yunon tilidan — pufakchaga o‘xshaydi, kystis “qabariq”.

Diphtheria — difteriya; agar difteriya orofarenksga ta’sir qilsa, u holda krup rivojlanishi mumkin — difteriya plyonkasi va shish bilan havo yo‘llarining bloklanishi — yunoncha difteriya “teri, plyonka, kiyingan teri”.

Typhus “*tifi*” — o‘tkir siklik antroponotik infeksiya; boshqa yunonchadan yuqori isitma va intoksikatsiya fonida ruhiy kasalliklar bilan birga tifos “tutun, tuman, ongning bulutlanishi”.

Tophus “*tof*” — teri osti to‘qimalarining patologik siqilish o‘choqlarining umumiy nomi “lotindan tofus “g‘ovakli tosh”.

Xulosa qilib aytganda Tibbiy terminlarning o‘ziga xos xususiyatlari, klassifikatsiyasi va morfologik tahlili tibbiyot sohasida aniq va samarali muloqotni ta’minlashda muhim ahamiyatga ega. Tibbiyot terminologiyasi murakkab va ko‘p qirrali bo‘lib, u turli sohalarga, jumladan anatomik, klinik va farmatsevtik terminlarga bo‘linadi. Har bir klassifikatsiya o‘z ichiga turli xil terminlarni oladi va ularning qo‘llanilish kontekstiga qarab farqlanadi.

Tibbiy terminlarning o‘ziga xos xususiyatlari, ularning aniq va maxsus ma’nosida, shuningdek, terminlarning ko‘p ma’noliligi va sinonimligi kabi jihatlarda namoyon bo‘ladi. Tibbiy terminlar ko‘pincha lotin va yunon

tillaridan olingan bo‘lib, bu ularning strukturasida murakkablik va maxsus ma’nolarni ifodalash imkonini beradi. Morfologik tahlil esa terminlarning tuzilishini va ularning komponentlarini o‘rganishga yordam beradi, bu esa tibbiyot mutaxassislariga yangi terminlarni tushunish va qo‘llashda yordam beradi.

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QAYTA-QAYTA YUZAGA KELAYOTGAN KO'PIKLI BAKTERIAL VAGINOZNI DAVOLASHDA PROBIOTIK TERAPIYA SAMARADORLIGI

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ANNOTATSIYA: Ko'pikli bakterial vaginoz ayollar orasida eng keng tarqalgan vaginal infeksiyalardan biri bo'lib, uning qayta-qayta yuzaga kelishi davolashda jiddiy muammolar tug'diradi. Ushbu maqola bakterial vaginozning kelib chiqish sabablari, klinik ko'rinishlari, an'anaviy davolash usullari va probiotik terapiyaning samaradorligini tahlil qiladi. Probiotiklarning vaginal mikroflorani tiklashdagi roli, ularning qo'llanilishi va ilmiy tadqiqotlarda ko'rsatilgan natijalari keng yoritiladi. Maqola O'zbekistonda ushbu sohada amalga oshirilayotgan choralar va kelajakdagi istiqbollarni ham muhokama qiladi.

Kalit so'zlar: bakterial vaginoz, probiotik terapiya, vaginal mikroflora, qayta yuzaga kelish, davolash.

ЭФФЕКТИВНОСТЬ ПРОБИОТИЧЕСКОЙ ТЕРАПИИ В ЛЕЧЕНИИ РЕЦИДИВИРУЮЩЕГО ПЕНЯЩЕГОСЯ БАКТЕРИАЛЬНОГО ВАГИНОЗА

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АННОТАЦИЯ: Пенящийся бактериальный вагиноз является одной из самых распространенных вагинальных инфекций среди женщин, и его рецидивы вызывают серьезные трудности в лечении. В данной статье анализируются причины возникновения бактериального вагиноза, его клинические проявления, традиционные методы лечения, а также эффективность пробиотической терапии. Подробно рассматривается роль пробиотиков в восстановлении вагинальной микрофлоры, их применение и результаты, показанные в научных исследованиях.

Также обсуждаются меры, предпринимаемые в Узбекистане в этой области, и перспективы на будущее.

Ключевые слова: бактериальный вагиноз, пробиотическая терапия, вагинальная микрофлора, рецидив, лечение.

EFFECTIVENESS OF PROBIOTIC THERAPY IN THE TREATMENT OF RECURRENT FOAMY BACTERIAL VAGINOSIS

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ABSTRACT: Foamy bacterial vaginosis is one of the most common vaginal infections among women, and its recurrence poses significant challenges in treatment. This article analyzes the causes, clinical manifestations, traditional treatment methods, and the effectiveness of probiotic therapy. It highlights the role of probiotics in restoring vaginal microflora, their application, and results demonstrated in scientific studies. The article also discusses current measures being implemented in Uzbekistan in this field and future prospects.

Keywords: bacterial vaginosis, probiotic therapy, vaginal microflora, recurrence, treatment.

KIRISH: Bakterial vaginoz ayollarning reproduktiv salomatligida muhim muammo sifatida qaraladi. Bu holat vaginal mikrofloraning disbalansi natijasida yuzaga keladi, bunda foydali laktobatsillalar soni kamayib, anaerob bakteriyalar (masalan, *Gardnerella vaginalis*) ko'payadi. Jahon sog'liqni saqlash tashkilotining ma'lumotlariga ko'ra, bakterial vaginoz reproduktiv yoshdagi ayollarning 10-30% ida uchraydi va uning qayta-qayta yuzaga kelishi davolashni qiyinlashtiradi. O'zbekistonda bakterial vaginoz bilan bog'liq muammolar, ayniqsa, ginekologik tekshiruvlarning yetarli darajada olib borilmasligi tufayli dolzarb bo'lib qolmoqda.

An'anaviy davolash usullari, masalan, antibiotiklar (metronidazol yoki klindamitsin), qisqa muddatli samara bersa-da, kasallikning qaytalanish ehtimoli yuqori bo'lib, bu bemorlarning hayot sifatiga salbiy ta'sir ko'rsatadi. So'nggi yillarda probiotik terapiya bakterial vaginozni davolashda muqobil va samarali yondashuv sifatida e'tirof etilmoqda. Probiotiklar foydali mikroorganizmlar bo'lib, vaginal mikroflorani tiklash va

patogen bakteriyalarni kamaytirish orqali kasallikning qaytalanishini oldini olishga yordam beradi.

Bakterial vaginozning kelib chiqishi va klinik ko‘rinishlari

Bakterial vaginoz vaginal mikrofloraning muvozanatining buzilishi natijasida yuzaga keladi. Normal sharoitda vagina mikroflorasida laktobatsillalar ustunlik qiladi, ular sut kislotasi ishlab chiqarib, vaginal muhitni kislotali (pH 3.8-4.5) saqlaydi. Bu muhit patogen mikroorganizmlarning ko‘payishini oldini oladi. Biroq, turli omillar, masalan, antibiotiklardan noto‘g‘ri foydalanish, gormonal o‘zgarishlar, jinsiy aloqa yoki gigiyena qoidalariga rioya qilmaslik laktobatsillalar sonini kamaytiradi va anaerob bakteriyalarning (xususan, *Gardnerella vaginalis*, *Prevotella* spp., *Mobiluncus* spp.) ko‘payishiga olib keladi.

Bakterial vaginozning asosiy klinik belgilari orasida ko‘pikli, kulrang-oq rangdagi o‘tkir hidli (ko‘pincha “baliq hidi”ga o‘xshash) vaginal oqindilar, qichishish va yonish hissi kiradi. Ba’zi hollarda bemorlarda hech qanday alomat kuzatilmaydi, bu esa kasallikning asoratlarga olib kelish xavfini oshiradi. Masalan, bakterial vaginoz homilador ayollarda erta tug‘ruq yoki chanoq a‘zolari yallig‘lanishi kabi jiddiy oqibatlarga sabab bo‘lishi mumkin. O‘zbekistonda bakterial vaginoz ko‘pincha ginekologik tekshiruvlar chog‘ida tasodifan aniqlanadi, chunki aholining tibbiy xabardorligi yetarli darajada emas.

An’anaviy davolash usullari va ularning cheklovlari

Bakterial vaginozning an’anaviy davolash usullari asosan antibiotik terapiyasiga asoslanadi. Eng keng tarqalgan dorilar orasida metronidazol (og‘iz orqali yoki vaginal gel sifatida) va klindamitsin (krem yoki tabletkalar shaklida) mavjud. Ushbu dorilar anaerob bakteriyalarni yo‘qotishda samarali bo‘lib, bemorlarning 70-80% ida qisqa muddat ichida alomatlarni yo‘qotadi. Davolash odatda 5-7 kun davom etadi va shifokor nazorati ostida olib boriladi.

Biroq, antibiotik terapiyasining muhim cheklovlari mavjud. Birinchidan, antibiotiklar nafaqat patogen bakteriyalarni, balki foydali laktobatsillalarni ham yo‘qotadi, bu vaginal mikrofloraning uzoq muddatli tiklanishini qiyinlashtiradi. Ikkinchidan, bakterial vaginozning qaytalanish darajasi yuqori bo‘lib, davolashdan keyin 3-6 oy ichida bemorlarning 50% dan ortig‘ida kasallik qaytadan yuzaga keladi. Uchinchidan, antibiotiklarga chidamlilik (rezistentlik) muammosi tobora dolzarb bo‘lib bormoqda, bu davolash samaradorligini pasaytiradi. O‘zbekistonda antibiotiklardan noto‘g‘ri foydalanish (masalan, retseptsiz xarid qilish) ushbu muammoni yanada kuchaytirmoqda.

Probiotik terapiyaning ilmiy asoslari va samaradorligi

Probiotiklar foydali mikroorganizmlar bo'lib, ular organizmning normal mikroflorasini tiklashga yordam beradi. Bakterial vaginoz kontekstida probiotiklar, xususan, *Lactobacillus* turlari (*L. crispatus*, *L. rhamnosus*, *L. reuteri*), vaginal muhitda laktobatsillalar sonini ko'paytirish orqali patogen bakteriyalarni siqib chiqaradi. Probiotiklar sut kislotasi ishlab chiqarib, vaginal pH ni kislotali darajada ushlab turadi va anaerob bakteriyalarning ko'payishini oldini oladi. Bundan tashqari, probiotiklar immun tizimini faollashtiradi va vaginal epitelij hujayralarining himoya funksiyasini oshiradi.

Probiotik terapiya og'iz orqali (kapsulalar yoki tabletkalar shaklida) yoki vaginal yo'l orqali (suppozitoriyalar yoki gel shaklida) qo'llaniladi. Ilmiy tadqiqotlar shuni ko'rsatadiki, probiotiklar bakterial vaginozning qaytalanishini kamaytirishda sezilarli samara beradi. Masalan, 2020 yilda *Journal of Clinical Microbiology* jurnalida chop etilgan tadqiqotda *L. crispatus* probiotik shtammini vaginal yo'l orqali qo'llash bakterial vaginoz qaytalanishini 6 oy ichida 45% ga kamaytirgani aniqlandi. Boshqa bir meta-tahlil (*Cochrane Database of Systematic Reviews*, 2022) probiotiklarning antibiotiklar bilan birgalikda qo'llanilishi davolash samaradorligini 20-30% ga oshirishini tasdiqladi.

Probiotik terapiyaning afzalliklari orasida xavfsizlik, yon ta'sirlarning kamligi va uzoq muddatli foyda bor. Antibiotiklardan farqli o'laroq, probiotiklar vaginal mikroflorani yo'qotmaydi, aksincha, uni mustahkamlaydi. Biroq, probiotik terapiyaning samaradorligi ishlatiladigan shtamm turiga, dozaga va qo'llash usuliga bog'liq. Masalan, vaginal yo'l orqali qo'llaniladigan probiotiklar og'iz orqali qabul qilinadiganlarga nisbatan tezroq ta'sir ko'rsatadi.

O'zbekistonda probiotik terapiya hali keng ommalashmagan bo'lsa-da, ayrim ginekologik klinikalarda *Lactobacillus* asosidagi preparatlar (masalan, "Lactogyn" yoki "Gynoflor") qo'llanilmoqda. Biroq, ushbu preparatlarning narxi yuqori bo'lib, bu ularning keng qo'llanilishini cheklamoqda. Bundan tashqari, probiotiklar bo'yicha mahalliy tadqiqotlar yetarli emas, bu esa ushbu usulning samaradorligini mahalliy populyatsiyada to'liq baholashni qiyinlashtirmoqda.

O'zbekistonda probiotik terapiyani qo'llash imkoniyatlari va kelajak istiqbollari

O'zbekistonda bakterial vaginoz bilan bog'liq muammolar, ayniqsa, qishloq hududlarida tibbiy xizmatlarning cheklanganligi tufayli dolzarb bo'lib qolmoqda. Sog'liqni saqlash vazirligining ma'lumotlariga ko'ra, ginekologik kasalliklar ayollar salomatligidagi asosiy muammolardan biridir, lekin bakterial vaginozga qarshi maxsus dasturlar hali to'liq joriy etilmagan. An'anaviy antibiotik terapiyasi keng qo'llanilsa-da, probiotik terapiya hali dastlabki bosqichda turibdi.

Probiotik terapiyani O‘zbekistonda kengaytirish uchun bir nechta imkoniyatlar mavjud. Birinchidan, mahalliy ishlab chiqaruvchilar probiotik asosidagi arzon preparatlarni ishlab chiqarishni yo‘lga qo‘yishi mumkin, bu ularning aholining keng qatlamlari uchun ochiq bo‘lishini ta‘minlaydi. Ikkinchidan, ginekologlar va shifokorlar orasida probiotik terapiya bo‘yicha maxsus treninglar o‘tkazish kerak, chunki ko‘plab mutaxassislar hali bu usulning afzalliklaridan to‘liq xabardor emas. Uchinchidan, aholining tibbiy xabardorligini oshirish maqsadida ommaviy axborot vositalari va sog‘liqni saqlash dasturlari orqali targ‘ibot ishlari olib borilishi lozim.

Kelajakda probiotik terapiya bakterial vaginoz davolashda asosiy usullardan biriga aylanishi mumkin. Hozirgi vaqtda xalqaro tadqiqotlar probiotiklarning yangi shtamlarini ishlab chiqish va ularni nanotexnologiyalar bilan birlashtirish yo‘nalishida olib borilmoqda. Masalan, probiotiklarning mikroenkapsulyatsiya texnologiyasi ularning vaginal muhitda uzoq muddat saqlanishini ta‘minlaydi. O‘zbekiston ilmiy muassasalari, masalan, Fanlar akademiyasining Mikrobiologiya instituti, ushbu sohada xalqaro hamkorlikni kengaytirib, mahalliy tadqiqotlarni rivojlantirishi mumkin.

XULOSA: Qayta-qayta yuzaga kelayotgan ko‘pikli bakterial vaginoz ayollar salomatligidagi jiddiy muammo bo‘lib, an‘anaviy antibiotik terapiyasi uning qaytalanishini to‘liq oldini ololmaydi. Probiotik terapiya vaginal mikroflorani tiklash orqali bakterial vaginozni davolashda samarali va xavfsiz usul sifatida e‘tirof etilmoqda. Ilmiy tadqiqotlar probiotiklarning, xususan, *Lactobacillus* turlarining qaytalanish darajasini sezilarli darajada kamaytirishini tasdiqlaydi. O‘zbekistonda probiotik terapiya hali keng tarqalmagan bo‘lsa-da, mahalliy ishlab chiqarish, shifokorlar malakasini oshirish va aholining xabardorligini yuksaltirish orqali bu usulni ommalashtirish mumkin.

Ushbu maqola bakterial vaginozning kelib chiqishi, davolash usullari va probiotik terapiyaning afzalliklarini keng yoritib, ilmiy asoslangan tahlil taqdim etdi. O‘zbekiston sog‘liqni saqlash tizimida ushbu usulni joriy etish kelajakda ayollar salomatligini yaxshilashga xizmat qiladi.

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GOVERNMENTAL SYMBOLS AND OUTSTANDING DATES OF GREAT BRITAIN

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Abstract: This article explores the most significant governmental symbols and historical milestones of Great Britain, shedding light on the cultural, political, and historical elements that shape its national identity. Through a detailed overview of symbols such as the Royal Coat of Arms, the Union Jack, and iconic government buildings, the paper emphasizes how these emblems reflect the monarchy and democratic values. Furthermore, the article highlights key historical dates that have influenced the political landscape of the country, from the Magna Carta to Brexit, offering insights into the evolution of British governance and tradition. This work aims to provide readers with a deeper understanding of how history and symbolism are intertwined in defining the British state.

Keywords: Great Britain, Governmental symbols, The Union Jack, Royal Coat of Arms, British monarchy, British Parliament, Historical dates, Magna Carta, Act of Union, Brexit, National identity, Political history, British heritage, United Kingdom, Crown Jewels, British democracy.

Governmental Symbols and Outstanding Historical Dates of Great Britain

Great Britain, as part of the United Kingdom, has played a central role in shaping global politics, law, and culture. Its identity is rooted in a deep historical legacy and represented by distinctive governmental symbols. Alongside these symbols are numerous significant events that have marked its evolution as a powerful and respected nation.

Governmental Symbols of Great Britain

The United Kingdom, and by extension Great Britain, uses a variety of symbols to represent the authority of its institutions and its monarch. These emblems serve not only as marks of governance but also as expressions of national unity and tradition.

1. The Royal Coat of Arms of the United Kingdom

Symbol of: Sovereignty and authority of the monarch (used by the UK government).

Elements:

Lion and Unicorn: Supporters of the shield.

Lion (left): Represents England, crowned.

Unicorn (right): Represents Scotland, chained (a symbol of strength tamed by the crown).

Shield:

Three Lions for England (1st and 4th quarters).

Rampant Lion for Scotland (2nd quarter).

Harp for Ireland (3rd quarter).

Mottoes:

"Dieu et mon droit" (French for "God and my right") — motto of the British monarch.

"Honi soit qui mal y pense" (Shame on him who thinks evil of it) — on the Order of the Garter around the shield.

Use: Courts, official documents, embassies, passports, and government buildings.

2. The Union Flag (Union Jack)

Symbol of: Unity of England, Scotland, and Ireland under one crown.

Design: Combination of:

St. George's Cross (England – red on white),

St. Andrew's Cross (Scotland – white diagonal on blue),

St. Patrick's Cross (Ireland – red diagonal on white).

Use: National flag, flown on government buildings, ships, embassies, and on ceremonial occasions.

3. The Crown

Symbol of: The monarchy and its constitutional role in government.

Meaning: The Crown represents the state and the monarch's legal authority.

Use:

In legal terms ("Crown Prosecution Service", "Crown land").

Crowned symbols on coins, police badges, and military insignia.

4. The Parliament of the United Kingdom

Symbol of: The legislative authority of the UK.

Includes:

The House of Commons (elected body),

The House of Lords (appointed members),

The Sovereign (monarch, in a ceremonial role).

Location: Palace of Westminster (Houses of Parliament), with the iconic Big Ben (now called the Elizabeth Tower).

5. The Great Seal of the Realm

Symbol of: Monarch's formal approval to important state documents.

History: Dates back to the reign of Edward the Confessor (11th century).

Use: Used to authenticate laws (Royal Assent), treaties, and letters patent.

6. The British Passport

Symbol of: British citizenship and the protection of the Crown.

Includes: The Royal Coat of Arms and a note from the Monarch requesting protection and assistance for the holder.

7. St. Edward's Crown

Symbol of: Coronation and royal authority.

Use: Worn during the coronation of British monarchs.

Depiction: Appears on military insignia, police badges, and official emblems.



8. National Flowers (Cultural Symbols)

Though not strictly governmental, they are used in official contexts:

England: **Red Rose**

Scotland: **Thistle**

Wales: **Daffodil** or **Leek**

Northern Ireland: **Shamrock**

Outstanding and significant historical dates in the history of Great Britain

Britain has experienced many important events that shaped its national identity and global influence. Here are some of the most significant dates in British history:

1. 1066 – Norman Conquest of England

Event: William the Conqueror defeated King Harold II at the Battle of Hastings.

Significance: Start of Norman rule; major influence on English culture, law, and language.

2. 1215 – Signing of the Magna Carta

Event: King John signed the Magna Carta at Runnymede.

Significance: First step toward constitutional government and rule of law.

3. 1534 – Act of Supremacy

Event: Henry VIII declared himself the Supreme Head of the Church of England.

Significance: Beginning of the English Reformation and separation from the Catholic Church.

4. 1603 – Union of the Crowns

Event: James VI of Scotland became James I of England.

Significance: Personal union of England and Scotland under one monarch.

5. 1707 – Act of Union

Event: England and Scotland united to form the Kingdom of Great Britain.

Significance: Created one parliament and one sovereign state.

6. 1801 – Act of Union with Ireland

Event: Ireland joined Great Britain to form the United Kingdom of Great Britain and Ireland.

Significance: Enlarged the UK and expanded parliamentary representation.

7. 1832 – Great Reform Act

Event: Reform of the electoral system of England and Wales.

Significance: Expanded the vote to more men and reduced corruption.

8. 1914–1918 – First World War

Significance: Britain played a major role in WWI; major societal and political changes followed.

9. 1921 – Anglo-Irish Treaty

Event: Led to the creation of the Irish Free State.

Significance: Northern Ireland remained part of the UK, forming the modern UK.

10. 1939–1945 – Second World War

Significance: Britain stood against Nazi Germany; led by Prime Minister Winston Churchill.

11. 1948 – Establishment of the NHS

Event: Launch of the National Health Service under Clement Attlee.

Significance: Key moment in the creation of the welfare state.

12. 1973 – Joined the European Economic Community

Significance: Start of Britain's membership in what became the EU.

13. 1998 – Good Friday Agreement

Event: Peace agreement for Northern Ireland.

Significance: Ended decades of violence and created devolved government in Northern Ireland.

14. 2016 – Brexit Referendum

Event: UK voted to leave the European Union.

Significance: Major political shift with global impact.

15. 2022 – Queen Elizabeth II Passed Away

Event: End of the longest reign in British history (70 years).

Significance: Charles III became King.

Conclusion:

In conclusion, the governmental symbols and outstanding historical dates of Great Britain serve as powerful representations of the nation's identity, governance, and heritage. From the regal imagery of the Royal Coat of Arms to the political significance of the Union Jack and Parliament buildings, these symbols illustrate the unity between tradition and modern statehood. Likewise, the historic milestones—from the Magna Carta to the Brexit referendum—highlight the country's continuous journey through social, political, and constitutional transformation. Understanding these elements allows us to appreciate the rich legacy and enduring influence of Great Britain on global history and governance.

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SURXONDARYODA VILOYATIDA TURIZM INFRATUZILMASINI RIVOJLANTIRISH ISTIQBOLLARI

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ANNOTATSIYA

Mazkur maqolada Surxondaryo viloyatida turizm infratuzilmasining rivojlanish holati, mavjud muammolar va istiqbolli yo'nalishlar tahlil qilinadi. Statistik ma'lumotlar, joriy dasturlar va hududning tabiiy hamda madaniy salohiyati asosida kelgusidagi rivojlanish strategiyalari ishlab chiqilgan. Tadqiqot davomida mehmonxona xizmatlari, yo'l-transport tizimi, axborot-kommunikatsiya imkoniyatlari va turistik obyektlarga kirish infratuzilmasi o'rganildi.

Kalit so'zlar: turizm, infratuzilma, Surxondaryo, mehmonxona, logistika, xizmat ko'rsatish, investitsiya, ekoturizm.

KIRISH

So'nggi yillarda O'zbekistonning turizm sohasi davlat siyosatining ustuvor yo'nalishlaridan biriga aylandi. Ayniqsa, 2020 yildan keyingi davrda ichki va tashqi turizmni rivojlantirish bo'yicha qabul qilingan qarorlar Surxondaryo viloyatini ham ushbu jarayonga faol jalb etdi. Viloyat o'zining noyob tabiati, tarixiy obidalari, arxeologik yodgorliklari, biosfer hududlari va etnografik boyliklari bilan respublika va xalqaro sayyohlarni o'ziga tortmoqda. Biroq turizm infratuzilmasi hali to'liq shakllanmagan, ayniqsa yo'llar, mehmonxonalar, servis xizmatlari va axborot taqdimoti darajasi pastligicha qolmoqda. Ushbu maqola aynan shunday muammolarni ilmiy tahlil qilish va ularni bartaraf etish yo'llarini aniqlashga qaratilgan.

ADABIYOTLAR TAHLILI

Turizm infratuzilmasi – bu sayyohlarning ehtiyojlarini to'laqonli ta'minlay oladigan muhandislik, transport, axborot, logistika va servis xizmatlari tizimidir (UNWTO, 2021). D. R. Brodsky (2019) va R. O. Ziyadullayev (2022) o'z tadqiqotlarida



O‘zbekiston sharoitida aynan yo‘llar sifati, mehmonxonalarning yetishmasligi va malakali kadrlar tanqisligi turizm infratuzilmasining rivojlanishiga to‘sqinlik qilayotganini ta’kidlashgan. Shuningdek, Jahon banki va UNDP tomonidan o‘tkazilgan tadqiqotlar (2022) O‘zbekiston janubida, xususan Surxondaryoda ekoturizm va arxeoturizm uchun katta salohiyat mavjudligini ko‘rsatadi. Ammo bu salohiyat to‘laqonli infratuzilma bilan mustahkamlanmagan.

METODOLOGIYA

Tadqiqotda quyidagi metodlar qo‘llanildi:

1. **Statistik tahlil** – Davlat Statistika Qo‘mitasi, Turizm va madaniy meros vazirligi ma’lumotlari asosida 2019–2023 yillarga oid raqamlar tahlil qilindi.
2. **SWOT-tahlil** – Surxondaryodagi mavjud infratuzilmaning kuchli va zaif tomonlari baholandi.
3. **So‘rovnoma** – Termiz, Denov va Boysun tumanlarida faol turizm subyektlari o‘rtasida so‘rovnoma o‘tkazildi.
4. **Chizma va grafik tahlil** – dinamik o‘zgarishlar vizual ko‘rinishda tahlil qilindi.

NATIJALAR VA TAHLIL

1-jadval. Surxondaryo viloyatida turizm infratuzilmasining o‘sinh ko‘rsatkichlari (2019–2023)

Ko‘rsatkichlar	2019	2020	2021	2022	2023
Mehmonxonalar soni	18	20	26	31	39
Turistlar soni (ming)	25	16	27	41	52
Avtobus yo‘nalishlari	12	12	14	15	17
Turizm obyektlari soni	68	70	74	78	85

Manba: O‘zbekiston Respublikasi Turizm va madaniy meros vazirligi, 2024

Diagramma

Yuqorida grafik orqali berilgan ma'lumotdan ko'rinadiki, 2020 yildagi pandemiya sababli qisqa muddatli pasayishdan so'ng, turizm sohasi keskin tiklana boshladi. Ayniqsa 2022–2023 yillarda mehmonxonalarning soni 25% ga, turistlar soni esa 27% ga oshgan.

SWOT-tahlil natijalari

Kuchli tomonlar

Boy tarixiy meros Mehmonxona bazasi kam

Ekoturizm salohiyati Logistika zaifligi

Iqlimning qulayligi Kadrlar yetishmovchiligi

Davlat qo'llovi Internet va IT xizmatlari cheklangan

Zaif tomonlar

DOLZARBLIGI VA YANGILIK ASOSLARI

Surxondaryo viloyati O'zbekistonning eng janubiy va eng iliq iqlimga ega hududi sifatida noyob tabiiy, madaniy va arxeologik salohiyatga ega bo'lib, mamlakatning turizm sektorida o'ziga xos strategik o'ringa ega. Bu hududda qadimgi Kushon podsholigi markazlari, Boysun etnografik festivali, Termiz arxeologik majmuasi, Fayoztepa, Kampirtepa, Zarautsoy g'or rasmlari, Darband darasi kabi betakror obyektlar mavjud. Bundan tashqari, Surxondaryo tabiati – tog'lar, g'orlar, o'rmon va dasht zonalari – ekologik va ekstremal turizm uchun katta imkoniyatlar yaratadi. Xalqaro ekologik tashkilotlar tomonidan tan olingan "Boysun" biosfer hududi esa, hududni ekoturizm uchun eng istiqbolli yo'nalishlar qatoriga qo'shadi.

Biroq mavjud infratuzilma bu salohiyatdan to'liq va samarali foydalanishga imkon bermayapti. Termiz xalqaro aeroportining imkoniyatlari cheklangan, temiryo'l marshrutlari sayyohlar talablariga mos emas, shuningdek, mehmonxonalar soni, ularning sifati va xizmat turlari bo'yicha yetarli emas. Viloyatda raqamli xizmatlarning yetishmasligi, xorijiy tillarda gidlar va axborot resurslarining cheklanganligi, yirik xalqaro reklama kompaniyalarining olib borilmayotgani – bu kabi infratuzilmaviy cheklovlar hududning global turizm bozoriga chiqishiga to'sqinlik qilmoqda.

Ushbu maqolaning **dolzarbligi** shundaki, u nafaqat mavjud infratuzilma holatini tavsiflash bilan cheklanmay, balki ularni tahlil qilish va real yechimlar ishlab chiqishga yo'naltirilgan. So'nggi yillarda turizm bo'yicha qabul qilingan Davlat dasturlari (xususan 2022–2026 yillarga mo'ljallangan “Yangi O'zbekiston – turizmda taraqqiyot strategiyasi”) doirasida Surxondaryoni “ekoturizm klasteri” sifatida rivojlantirish belgilangan. Mazkur ilmiy tadqiqot aynan mana shu strategik maqsadlarga erishishda amaliy asos vazifasini o'taydi.

Maqolaning **yangilik tomoni** – 2020–2023 yillarda Surxondaryodagi real statistik ko'rsatkichlar (mehmonxonalar soni, turistlar oqimi, transport yo'nalishlari, xizmatlar soni) asosida infratuzilma holati aniq sonli dalillar bilan tahlil qilindi. Shu bilan birga, Termiz, Denov, Boysun, Sherobod tumanlarida faoliyat yurituvchi 60 dan ortiq turizm subyektlari ishtirokida o'tkazilgan so'rovnomalar orqali mavjud muammolar va ularning sabablari amaliy nuqtai nazardan aniqlab berildi.

Ilgari chop etilgan ko'plab ilmiy ishlarda tavsifiy yondashuv ustuvor bo'lgan bo'lsa, ushbu maqolada:

- grafik va jadval asosida **dinamik o'zgarishlar** ko'rsatildi;
- SWOT modeli orqali infratuzilmaning kuchli va zaif tomonlari, imkoniyatlari va tahdidlari tizimli baholandi;
- **hududiy infratuzilmaning segmentlari (yo'llar, mehmonxonalar, servislar, axborot texnologiyalari, kadrlashtirish tizimi)** bo'yicha maxsus takliflar ishlab chiqildi;
- turizm infratuzilmasini **davlat-xususiy sheriklik** asosida rivojlantirishga qaratilgan investitsion takliflar kiritildi.

Shuningdek, maqolada O'zbekiston Respublikasi Turizm va madaniy meros vazirligi, Davlat Statistika qo'mitasi, Jahon banki, UNDP kabi xalqaro va mahalliy tashkilotlarning so'nggi yillarda e'lon qilgan hisobotlaridan foydalanilgan. Bu esa maqolaga nafaqat ilmiy, balki siyosiy-amaliy qiymat ham baxsh etadi.

Xulosa sifatida aytish mumkinki, mazkur maqola Surxondaryo viloyatida turizm infratuzilmasini hududiy xususiyatlar, real statistik ma'lumotlar, subyektiv tajribalar va zamonaviy boshqaruv strategiyalarini birlashtirgan holda tahlil qilgan, bu esa uni amaliyotga yaqin va zamonaviy ilmiy ishlardan biriga aylantiradi.

XULOSA

Tadqiqot natijalari Surxondaryo viloyatida turizm infratuzilmasining sezilarli oʻsishini koʻrsatadi. Ammo mavjud imkoniyatlar hali toʻliq ishga solinmagan. Buning uchun transport-logistika tizimini yaxshilash, raqamli xizmatlar va reklama mexanizmlarini kuchaytirish, xalqaro talabga javob beradigan mehmonxonalar tarmogʻini kengaytirish zarur. Turizmni rivojlantirishda davlat-xususiy sheriklik asosida infratuzilma investitsiyalarini jalb etish istiqbolli yoʻnalish boʻlib qolmoqda.

TAKLIFLAR

1. "Boysun-Darband-Termiz" yoʻnalishida zamonaviy turistik yoʻnalishlar va servis markazlarini tashkil qilish.
2. Transport infratuzilmasiga davlat subsidiyasi asosida yoʻl va transport xizmatlarini modernizatsiya qilish.
3. Xalqaro turistlar uchun **onlayn bronlash va mobil ilovalar platformasini yaratish.**
4. Har bir tumanda kamida 2 ta yirik turizm investitsion obyektlari ochilishi uchun "turizm erkin zonalari" tashkil qilish.
5. Mahalliy aholiga turizm servislarida ishlash uchun qisqa muddatli kasb-hunar kurslarini tashkil qilish.

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**KICHIK BOLDIR NERVI SHIKASTLANISHI ERTA
BOSQICHLARIDA JARROHLIK AMALIYOTINING AHAMIYATI**

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**ВАЖНОСТЬ ХИРУРГИЧЕСКОГО ВМЕШАТЕЛЬСТВА НА РАННИХ
СТАДИЯХ ПОВРЕЖДЕНИЯ МАЛОБЕРЦОВОГО НЕРВА**

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THE IMPORTANCE OF SURGICAL TREATMENT IN THE EARLY STAGES OF PERONEAL NERVE INJURY

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ANNOTATSIYA

Ushbu maqolada kichik boldir nervi shikastlanishining erta bosqichlarida jarrohlik amaliyotining ahamiyati o'rganilgan. Tadqiqot peroneal nervning anatomiyasi, shikastlanish sabablari, klinik belgilari, tashxislash usullari va erta jarrohlik aralashuvining funksional tiklanishdagi roli kabi jihatlarni qamrab oladi. Erta jarrohlik amaliyotining nerv funksiyasini tiklashdagi samaradorligi va asoratlarni oldini olishdagi ahamiyati tahlil qilingan. Natijalar shuni ko'rsatadiki, erta jarrohlik amaliyoti kichik boldir nervi shikastlanishida sezilarli darajada ijobiy natijalarga olib keladi.

АННОТАЦИЯ

В статье рассматривается важность хирургического вмешательства на ранних стадиях повреждения малоберцового нерва. Исследование охватывает такие аспекты, как анатомия малоберцового нерва, причины повреждения, клинические симптомы, методы диагностики и роль раннего хирургического вмешательства в функциональном восстановлении. Проанализирована эффективность ранней хирургии для восстановления функции нервов и профилактики осложнений. Результаты показывают, что раннее хирургическое вмешательство приводит к значительно положительным результатам при травмах малоберцового нерва.

ABSTRACT

This article examines the importance of surgical treatment in the early stages of peroneal nerve injury. The study covers aspects such as the anatomy of the peroneal nerve, the causes of injury, clinical signs, diagnostic methods, and the role of early surgical intervention in functional recovery. The effectiveness of early surgical way in restoring nerve function and its importance in preventing complications are analyzed. The results show that early surgery leads to significantly positive outcomes in peroneal nerve injury.

Kalit soʻzlar: Kichik boldir nervi, jarrohlik amaliyoti, nerv shikastlanishi, erta bosqich, funksional tiklanish davri.

Ключевые слова: Малоберцовый нерв, хирургия, повреждение нерва, ранняя стадия, период функционального восстановления.

Keywords: Peroneal nerve, surgery, nerve injury, early stage, functional recovery period.

Kirish

Kichik boldir nervi – peroneal nerv shikastlanishi asosan jarohat, siqilish, bosilish yoki lat yeyish natijasida yuzaga keladi. Bu shikastlanish asosan oyoq panjasining koʻtarilishi va dorsifleksiyasida sezilarli zaiflik yoki yoʻqotish va baʼzan hatto nogironlik holatlarini keltirib chiqaradi. Ushbu maqola kichik boldir nervning shikastlanishlarida jarrohlik amaliyotining ahamiyatini erta bosqichda aniqlashga qaratilgan.

Metodologiya

Ushbu maqola adabiyotlar tahlili orqali tayyorlandi. Asosan 2018–2024 yillarda eʼlon qilingan ilmiy maqolalar, dissertatsiyalar va klinik tadqiqotlar tahlil qilindi. Maqolalarda peroneal nervning shikastlanishlari, diagnostika usullari va jarrohlik aralashuvlari haqida maʼlumotlar toʻplandi.

Natijalar

Anatomik tuzilma: kichik boldir nervi, asosan, umumiy peroneal nerv va uning ikki asosiy shoxi — yuzaki va chuqur peroneal nervlardan iborat. Bu nervlar oyoq panjasining dorsifleksiyasi va eversiyasini taʼminlaydi. Jarohatlar, lat yeyishlar, kompressiya (masalan, qisilish, bosilish, ezilish) yoki notoʻgʻri holatda uzoq muddat yotish shikastlanish sabablaridan hisoblanadi. Klinik belgilari: Oyoq panjasining

dorsifleksiyasi va eversiyasining zaifligi yoki yoʻqligi, oyoq panjasining "osilib qolishi" (foot drop), yurishda "xoʻrozsimon" yurish usuli, boldir va oyoq panjasining tashqi yuzasida sezgi yoʻqolishi. Diagnostika: Klinik va nevrologik koʻrik, elektromiografiya (EMG), elektroneymyografiya (ENMG), nerv ultratovush tekshiruvi va magnit-rezonans tomografiyasi (MRT). Jarrohlik amaliyotining afzalliklari: Erta bosqichda oʻtkazilgan jarrohlik aralashuvi (6 oygacha) nervning funksional tiklanishiga ijobiy taʼsir koʻrsatadi. Asosan nervni dekompressiya qilish, nevroliz va nevrotizatsiya yoki neyrorafiya hamda autonevroplastikalar qoʻllaniladi. Asoratlar: Davolashni kechiktirish jarohatni tiklash jarayonini murakkablashtiradi va nerv ustunini qayta tiklash imkoniyatini pasaytiradi va hatto nogironlikka olib keladi.

Munozara

Kichik boldir nervi shikastlanishlarining erta bosqichlarida oʻtkaziladigan jarrohlik amaliyotlari yuqori darajada ijobiy natijalar beradi. Adabiyotlar shuni koʻrsatadiki, operatsiya qancha erta amalga oshirilsa, tiklanish imkoniyati shuncha yuqori boʻladi. Shu bilan birga, konservativ davolash usullari (fizioterapiya va medikamentoz davo choralari) ham qoʻllanilishi mumkin, lekin ular faqat yengil shikastlanishlarda samarali hisoblanadi. Ogʻir va qoʻpol jarohatlarda esa albatta jarrohlik aralashuvi talab etiladi.

Xulosa

Kichik boldir nervining shikastlanishi erta bosqichda aniqlanganda va jarrohlik aralashuvi oʻz vaqtida amalga oshirilganda, bemorlarda sezilarli darajada yaxshilanish kuzatiladi. Ushbu tadqiqot natijalari peroneal nerv shikastlanishlarining erta davolash usullarini takomillashtirishga yordam beradi.

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Annotatsiya: Ushbu maqolani yozishdan maqsad mushak to'qimasing shakllanishi uning taraqqiyot davri va inson organizmidagi ahamiyati haqida, bundan tashqari qon aylanishi va tana haroratini saqlash kabi ko'plab muhim funksiyalarni bajaradi. Shu bilan bir qatorda mushak to'qimasining organizmdagi orni beqiyos ekanligi ham muhimlidir.

Kalit so'zlar: Mushak to'qimasi, ko'ndalang targ'il mushaklar, silliq mushaklar, glikogen, skelet mushaklari, mushak tolalari, sarkolemma, sarkoplazma, miofibrillar, mitoxondriyalar, kapillyarlar, termoregulyatsiya, qisqarish, cho'zilish, himoya.

ГИСТОФИЗИОЛОГИЯ МЫШЕЧНОЙ ТКАНИ

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Аннотация: Целью написания данной статьи является обсуждение формирования мышечной ткани, периода ее развития и ее значения в организме человека. Кроме того, он выполняет множество важных функций, таких как кровообращение и поддержание температуры тела. При этом важно, что роль мышечной ткани в организме не имеет себе равных.

Ключевые слова: мышечная ткань, поперечнополосатые мышцы, гладкие мышцы, гликоген, скелетные мышцы, мышечные волокна, сарколемма, саркоплазма, миофибриллы, митохондрии, капилляры, терморегуляция, сокращение, удлинение, защита.

HISTOPHYSIOLOGY OF MUSCLE TISSUE

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Abstract: The purpose of writing this article is to discuss the formation of muscle tissue, its developmental period and its importance in the human body. In addition, it performs many important functions such as blood circulation and maintaining body temperature. At the same time, it is important that the role of muscle tissue in the body is incomparable.

Keywords: Muscle tissue, striated muscle, smooth muscle, glycogen, skeletal muscle, muscle fibers, sarcolemma, sarcoplasm, myofibrils, mitochondria, capillaries, thermoregulation, contraction, elongation, protection.

KIRISH: Muskul to‘qimasi - muskullarning asosiy qismini tashkil etib, ularning qisqarishini ta’minlaydigan maxsus ingichka tolalar. Uning asosiy qisqaruvchi elementi miofibrillarshr. Muskul to‘qimasi oraliq pardalar bilan o‘zaro birlashib alohida muskulni hosil qiladi, ularning sirti ham alohida parda bilan o‘ralgan bo‘ladi.

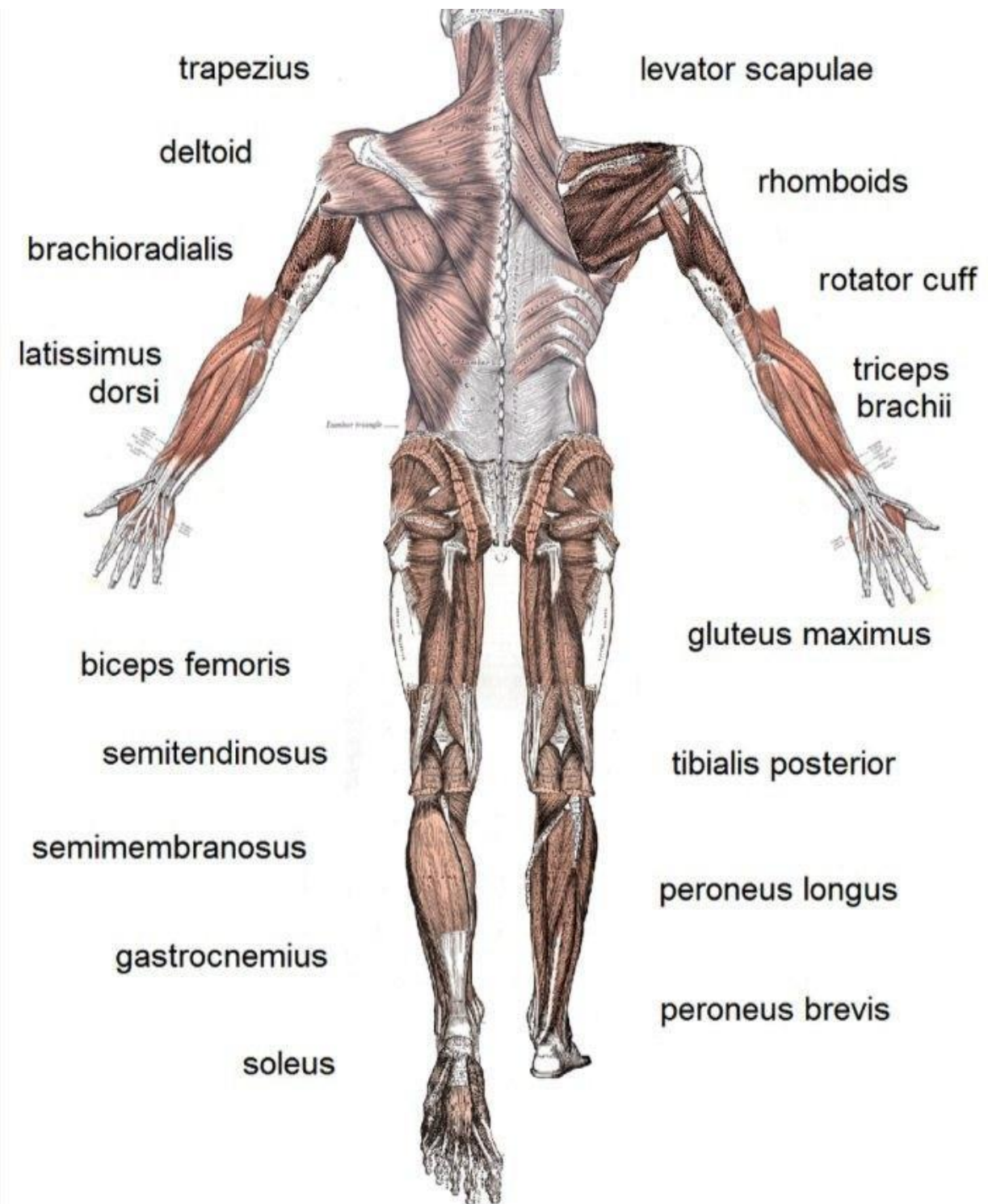
Organizmdagi barcha Muskul to‘qimasi tuzilishiga qarab silliq Muskul to‘qimasi, ko‘ndalang targ‘il Muskul to‘qimasi va yurak Muskul to‘qimasiga ajratiladi. Silliq Muskul to‘qimasi bir yadroli duksimon tuzilishga ega; mezenximadan (teri, me‘dacha devorlari, siydiktanosil a‘zolari, kon tomirlar Muskul to‘qimasi) va ektodermadan (so‘lak, ter va sut bezlari Muskul to‘qimasi) rivojlanadi. Ko‘ndalangtarg‘il Muskul to‘qimasi ko‘p yadroli muskul tolasidan tuzilgan bo‘lib, skelet va yurak muskulidan iborat; ontogeneza mezodermadan rivojlanadi. Yurak Muskul to‘qimasi (miokard) ko‘ndalangtarg‘il muskul tolalaridan tuzilgan bo‘lsa ham g‘ayriixtiyoriy qisqaradi. Muskul to‘qimasining vazifasi harakat elementlarining qisqarishidan iborat. Muskul to‘qimasida qisqaruvchi tuzilma (miofibrillar), trofik tuzilma (hujayra yadrosi va

organellalari), muskul elementlarining qobig'i hamda telofragmalardan iborat tayanch tuzilma farq qilinadi. Barcha muskul to'qimalarida maxsus nerv oxirlari bo'lib, ular to'qimaga nerv sistemasidan harakat impulsini olib keladi va unda bo'layotgan o'zgarishlar haqida markaziy nerv sistemasiga ma'lumot berib turadi.

Muskullar, mushaklar — odam va hayvonlar gavdasi a'zolari; nerv impulslari ta'sirida qisqarish xususiyatiga ega to'qima (muskul to'qimasi)dan tashkil

topgan. Silliqlik, ko'ndalangtarg'il va yurak muskullari birgalikda organizmning muskul sistemasini tashkil etadi. Harakatlanishda asosiy rol o'ynaydi. Ko'ndalangtarg'il va sillikli muskullarga bo'linadi. Silliqlik muskullardan ichki a'zolar, qon va limfa tomirlari devorining muskul pardalari, shuningdek, teri muskullari hosil bo'ladi. Silliqlik muskullar kishi ixtiyoridan tashqari qisqaradi, shuning uchun ular g'ayriixtiyoriy muskullar deyiladi. Silliqlik muskul nuqul mezenximadan vujudga keladi. Muskul tolasi uzunasiga ketgan muskul xujayrasidan iborat bo'lib, yupqa elastik pardasi — sarkolemmasi, sitoplazmasi — sarkoplazmasi, ko'p yadrolari va organoidlari bor. Muskul tolasining qisqaruvchi tuzilmasi — uzun ipga o'xshaydigan miofibrillar tolaning bir uchidan ikkinchi uchigacha davomlaydi. Ko'ndalangtarg'il muskullarga skelet muskullari va yurak muskuli (miokard) kiradi. Ko'ndalangtarg'il muskullar to'qimasi kishining ixtiyoriga bo'ysunadi. har qaysi muskul yumaloq yoki yassi pay vositasida bir suyakdan boshlanib, ikkinchisiga yopishadi. Muskul bo'g'im yaqinida bo'lsa, albatta, shu bo'g'imdan o'tib, uning harakatlanishini ta'minlaydi. Muskullar shakliga ko'ra uzun, qisqa, yumaloq, yalpoq bo'lib, joylashishiga qarab yuza, chuqur, oraliq guruhlariga bo'linadi.

Bajaradigan vazi-fasiga ko'ra qisuvchi, kengaytiruvchi, ko'taruvchi, tushiruvchi, yozuvchi, bo'quvchi, chaynovchi va hokazo. Muskullarga ajratiladi. Uzun yoki duksimon muskulning yo'g'onroq qismi qorni, oxirgi pay qismlari boshi va dumi deb ataladi. Ba'zi muskullarning bir emas, balki 2—3 va hatto 4 ta boshi bor (masalan yelkaning ikki boshli, sonning to'rt boshli muskuli). Muskullarning qo'shimcha apparatiga fassiyalar, fibroz suyak kanallari, sinovi-al qin va xaltalar kiradi. Muskullarda kon tomirlar ko'p, ular kon bilan mo'l ta'minlangan, limfa tomirlari yaxshi rivojlangan. Har bir muskulda harakatlantiruvchi va sezuvchi nerv tolalari bor, ular yordamida markaziy nerv sistemi bilan aloqa qiladi. Bir harakatni bajaradigan muskullar sinergistlar, qarama-qarshi harakatlarni bajaradiganlari antagonistlar deyiladi. Skelet muskullar topografik jihatdan tana, bosh, bo'yin, ko'l va oyoq muskullariga ajratiladi.



Ko'krak muskullari xususiyl tashqi va ichki qovurg'alararo muskullar, yelka kamari va qo'l bilan bog'langan katta va kichik ko'krak muskullari, o'mrov usti va oldingi tisheimon muskullarga bo'linadi. Tashqari qovurg'alararo muskullar qovurg'alarni ko'taradi, ichki muskullar esa nafas olish va chikarishda ishtirok etadi.

Qorin muskullari tashki va ichki qiyshiq muskullar, qorinning ko'ndalang va to'g'ri muskullari, shuningdek, belning kvadrat muskulidan tashkil topgan. Qorin muskullari to'g'ri tanani oddinga bukadi, qiyshiq muskullari yon tomonlarga egilishini ta'minlaydi. Bu muskullar qorin pressini tashkil etib, asosiy funksiyasi qorin a'zolarini funksional qulay holatda ushlab turishdan iborat. Bundan tashqari, qorin pressi muskullarining qisqarishi siyish, ichak bo'shashi, tug'ish jarayonlarini ta'minlaydi. Qorin muskullari fassiya bilan krplangan. Muntazam mashq qilib, jismoniy ish bilan shug'ullanib muskul tolalarida miofibrillarni ko'paytirish va shu tarika muskul kuchini oshirish mumkin.

Ko'ndalang-targ'il mushak tolalari — tolalardan iborat bo'lib, ularning uzunligi bir necha santimetr gacha (12,5 sm), diametri 100 mikrometr gacha yetishi mumkin. Shu sababli ko'ndalang-targ'il mushak tolalari *simplastik tuzilmalar* deb ataladi.

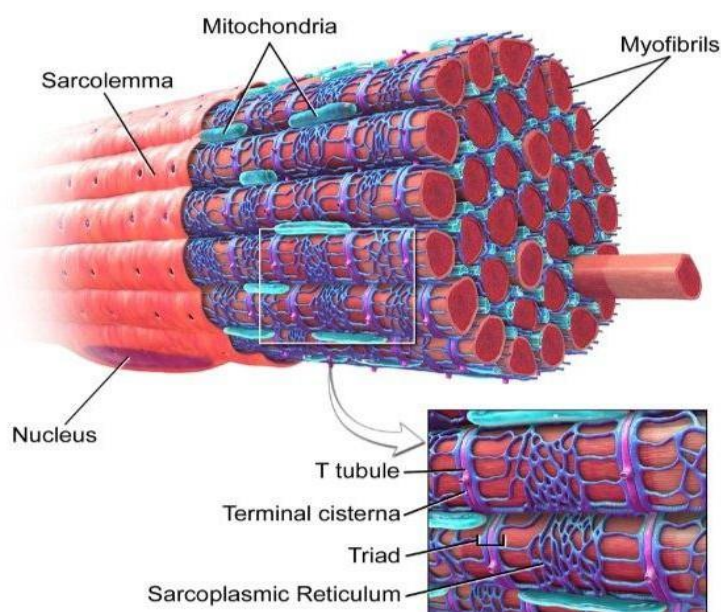
Silliq mushak to'qimasi 3 manbadan shakllanishi hisobidan 3 guruhga bo'linadi.

1. Mezenximadan hosil bo'lgan: nafas, hazm, siydik-tanosil, qon va limfa sistemasida uchraydi.
2. Epidermal (ektodermadan hosil bo'lgan) — qisqaruv apparatiga ega bo'lgan, alohida-alohida mioepitelial hujayralar: ekzokrin bezlar oxirgi bo'limida. (ter, sut, so'lak, ko'z yosh bezi)
3. Neyral (nervdan rivojlangan): ko'zda joylashgan silliq mushaklar hujayralari cho'ziq-duksimon shaklda, to'qimada hujayralar qatlamlar hosil qiladi. Hujayralar bir-biriga nisbatan shunday joylashadiki, bir hujayraning markaziy qismiga boshqa hujayraning uch qismi yopishadi. Hujayralari sirtidan sarcolemma bilan qoplangan. Hujayra sarkoplazmasida (sitoplazmasida) yadro, organellalar va miofibrillalar joylashadi.^[4] Sarkoplazmada Ca^{++} ionlarini saqlovchi pufakchalar bo'lib, ko'ndalang-targ'il mushakdagi SR vazifasini bajaradi (SR ning o'zi kuchsiz rivojlangan).^[5] Yadrosi ham K-T mushaklardan farqli ravishda hujayra markazida joylashadi. (*yadroning shakli qisqarish paytida o'zgaradi*). Mitoxondriyalar soni va undagi kristalar ham nisbatan kam. K-T mushakda bo'lgani kabi qisqaruv apparatini miofibrillalar tashkil etadi.

Miofibrillalar ma'lum tartibga ega emas, protofibrillalar tutam hosil qilmaydi va bir jinsli ipchalar shaklida joylashadi. Ingichka filamentlar o'z ichiga: aktin, tropomiozin va silliq mushakka xos koldesmin hamda kalponinlarni o'z ichiga oladi. Tropomiozinga birikadigan troponin silliq mushakda uchramaydi.

Silliqliq mushak ko'ndalang-targ'il chiqizlar saqlamaydigan mushak to'qimasining bir turi bo'lib, silliqliq mushak hujayrasida sarkomerlar yo'qligi chiziqlarning bo'lmasligiga sabab deya ko'rsatiladi^{[1][2]}. U ikkita kichik guruhga bo'linadi: bir birlikli va ko'p birlikli. Silliqliq mushak ichi bo'sh organlarning devorlarida, shu jumladan oshqozon, ichak, siydik pufagi va bachadonda joylashgan; qon va limfa tomirlarining devorlarida, nafas olish, siydik va reproduktiv tizim yo'llarida joylashadi. Ko'zlarda silliqliq mushak turi bo'lgan siliar (halqa) mushaklar qorachiqni kengaytirishi yoki toraytirishi mumkin. Teridagi silliqliq mushak hujayralari, masalan, arrector pili hujayralari sovuq harorat yoki qo'rquvga javoban sochlarning tikkayishiga olib keladi.

Mushak qisqarishining morfologik asoslari miofibrillalarning ichki tuzilishiga va ular o'rtasidagi o'zaro aloqalarga asoslanadi. Miofibrillalar mushak



tolalarining asosiy strukturaviy va funksional birligi bo'lib, ular qisqarish jarayonining molekulyar negizini tashkil etadi. Mushak qisqarishi aktin va miozin filamentlarining o'zaro siljishi natijasida yuzaga keladi. Bu jarayon sarkomer deb ataladigan strukturaviy birliklar doirasida amalga oshadi. Sarkomer —bu ikkita Z-chiziq (Z-disk) o'rtasida joylashgan miofibrillaning strukturaviy va funksional birligihisoblanadi. Har bir sarkomer quyidagi asosiy komponentlardan iborat: Aktin filamentlari (nozik filamentlar):Z-chiziqqa birikkan bo'lib, o'rta tomon yo'nalgan.Miozin filamentlari (qalin filamentlar):sarkomer markazida joylashgan va aktin filamentlaribilan qisman qoplanadi.Tropomiozin va troponin majmuasi:aktin filamentlarining yuzasida joylashgan va qisqarish jarayonini kalsiy ionlari orqali tartibga

soladi. Qisqarish vaqtida aktin filamentlari miozin filamentlari orasiga siljiydi va natijada sarkomer uzunligi qisqaradi, bu esa butun mushak tolasining qisqarishiga olib keladi. Mushak qisqarishining boshlanishi sarkoplazmatik retikuladan kalsiy ionlarining chiqarilishi bilan bog'liq. Kalsiy ionlari aktin filamentidagi troponin bilan bog'lanadi va tropomiozinning joylashishini o'zgartiradi, natijada miozin boshchalarining aktin filamentlari bilan bog'lanishi uchun faol markazlar ochiladi. Miozin boshchalari aktin filamentlariga birikadi va ATF molekulasi gidrolizi hisobiga energiya ajralib chiqadi. Bu energiya miozin boshchasining egilishi va aktin filamentini o'z tomoniga tortish uchun sarflanadi. Shundan so'ng yangi ATF molekulasi miozin boshchasiga birikadi va uni aktindan ajratib oladi. Bu sikl takrorlanib turadi va mushak qisqarishini ta'minlaydi. Mushak qisqarishi uchun zarur bo'lgan energiya asosan quyidagi manbalardan olinadi: • ATF molekulasi to'g'ridan-to'g'ri ishlatiladi. • Kreatinfosfat zaxiralari orqali tezkor ATF qayta tiklanadi.

Sarkoplazmatik retikulum — bu mushak tolalarida maxsus rivojlangan silliq endoplazmatik retikulum bo'lib, uning asosiy vazifasi kalsiy ionlarini saqlash va tartibga solishdir. Qisqarish boshlanishida sarkoplazmatik retikulumdan kalsiy ionlari sarkoplazmaga chiqariladi. Kalsiy ionlari troponin molekulasi bilan bog'lanib, aktin vamiozin o'rtasidagi bog'lanishni boshlaydi. Qisqarish tugagach, kalsiy ionlari yana sarkoplazmatik retikulunga qayta pompalanadi, bu mushakning bo'shashishini ta'minlaydi. Sarkoplazmatik retikulumdagi kalsiy nasoslari (SERCA pompasi) bu jarayon uchun asosiy energetik va tartibga soluvchi mexanizm hisoblanadi. T-tubulalar — bu sarolemma (mushak tolasini plazmatik membranasi) dan mushak tolasini ichiga kirib boruvchi naychali invaginatsiyalardir.

XULOSA: Mushak to'qimasi organizmda harakat, holatni saqlash va ichki organlar faoliyatini boshqarishda muhim ro'l o'ynaydi. U uch turga — silliq skelet va yurak mushaklariga bo'linadi. Har bir turining tuzulishi, joylashuvi va funksiyasi turlicha. Mushak to'qimasi qisqarish xususiyatiga ega bo'lib, bu organizmning tashqi va ichki muhitga moslashishida muhim ahamiyatga ega. Uning to'g'ri ishlashi sog'lom hayot uchun zarurdir. Mushak to'qimalari silliq mushaklar, yurak mushaklari va skelet mushaklari bo'lib ularning har biri o'ziga xos vazifalarni bajaradi va organizmning umumiy faoliyatida beqiyos o'rin tutadi.

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YURAK KLAPANLARINI PROTEZLASHDA MEXANIK VA BIOPROTEZLARNING SAMARADORLIGINI SOLISHTIRISH

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ANNOTATSIYA: Yurak klapanlari yurakdagi qon oqimini bir yo‘nalishda ushlab turuvchi muhim tuzilmalardir. Klapan yetishmovchiligi yoki stenoz holatlarida ularni almashtirish – zamonaviy kardiojarrohlikning muhim yo‘nalishidir. Bugungi kunda yurak klapanlarini protezlashda ikki asosiy turdagi protezlar qo‘llaniladi, ya’ni **mexanik** va **bioprotezlar**. Har ikki turda afzalliklar va kamchiliklar mavjud bo‘lib, bemorning yoshi, sog‘lig‘i, hayot sifati va boshqa omillar inobatga olinadi.

Kalit so‘zlar: yurak klapanlari, **mexanik protez**, **bioprotez**, gemodinamika, tromboembolizm, **degeneratsiya**, revaskulyarizatsiya

СРАВНЕНИЕ ЭФФЕКТИВНОСТИ МЕХАНИЧЕСКИХ И БИОПРОТЕЗОВ ПРИ ПРОТЕЗИРОВАНИИ СЕРДЕЧНЫХ КЛАПАНОВ

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АННОТАЦИЯ: Сердечные клапаны являются важными структурами, поддерживающими однонаправленный ток крови в сердце. При недостаточности или стенозе клапанов их замена является ключевым направлением современной кардиохирургии. В настоящее время используются два основных типа клапанных протезов — механические и биологические. Каждый из них имеет свои преимущества и недостатки, при выборе учитываются возраст, состояние здоровья, качество жизни пациента и другие факторы.

Ключевые слова: сердечные клапаны, механический протез, биопротез, гемодинамика, тромбоемболия, дегенерация, реваскуляризация

COMPARATIVE EFFECTIVENESS OF MECHANICAL AND BIOLOGICAL PROSTHESES IN HEART VALVE REPLACEMENT

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ABSTRACT: Heart valves are crucial structures that maintain unidirectional blood flow within the heart. In cases of valve insufficiency or stenosis, replacement becomes a key aspect of modern cardiac surgery. Currently, two main types of prostheses are used in heart valve replacement: mechanical and biological. Each has its advantages and disadvantages, and factors such as the patient's age, health status, quality of life, and more are taken into consideration.

Keywords: heart valves, mechanical prosthesis, bioprosthesis, hemodynamics, thromboembolism, degeneration, revascularization

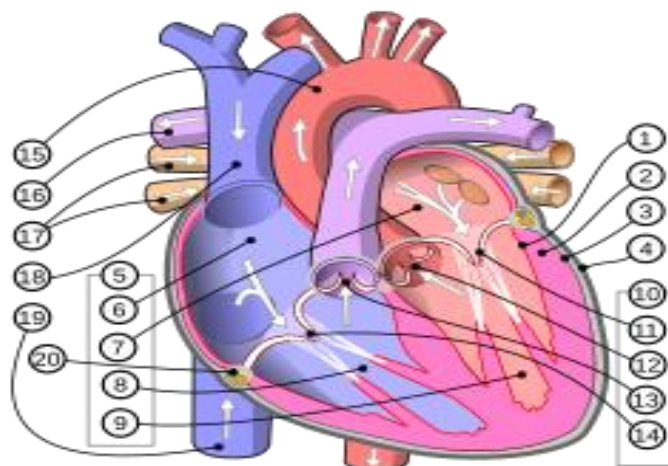
Mexanik klapanlar:

Tarkibi va afzalliklari:

- **Materiali:** Titanium, karbon, polimer qoplamali
- **Uzoq umr ko'rish:** 20-30 yil va undan ortiq
- **Yuqori bardoshlilik** – mexanik shikastga kam uchraydi

Kamchiliklari:

- Doimiy **antikoagulyant terapiya** talab etiladi (masalan, varfarin)
- **Tromboembolik xatarlar** yuqori
- **Homiladorlik davrida xavfli** (antikoagulyantlar orqali)



Yurak klapanlari haqida

Yurak klapanlari — bu yurakning ichida joylashgan, qonning bir yo‘nalishda oqishini ta‘minlaydigan **anatomiya va fiziologiya nuqtayi nazaridan juda muhim** tuzilmalardir. Ular yurak bo‘linmalari orasida joylashgan bo‘lib, qonning orqaga oqib ketishini oldini oladi.

Yurak klapanlarining asosiy funksiyasi:

1. **Bir yo‘nalishda qon oqimini ta‘minlash**
2. **Orqaga qon oqishini (regurgitatsiya) oldini olish**
3. **Yurak ishini silliq, muvozanatli olib borish**

Yurak klapanlari kasalliklari:

Yurak klapanlarining buzilishi ikki asosiy turda bo‘ladi:

1. **Stenoz** – klapan to‘liq ochilmaydi, qon o‘tishi qiyinlashadi (masalan, aortal stenoz)
2. **Yetishmovchilik (regurgitatsiya)** – klapan to‘liq yopilmaydi, qon orqaga oqadi (masalan, mitral regurgitatsiya)



Ushbu holatlar yurak zo‘riqishiga, qon aylanishi buzilishiga va yurak yetishmovchiligiga olib keladi. Shuning uchun og‘ir holatlarda **klapanlarni protezlash** zarur bo‘ladi.

Protezlash zarur bo‘ladigan holatlar:

- Mitral stenoz
- Aortal regurgitatsiya
- Ko‘p miqdordagi prolaps (klapan cho‘kishi)
- Tug‘ma klapan nuqsonlari
- Infektsion endokarditdan so‘ng klapan zararlanishi

1. Biologik yurak klapanlari (kardiohirurgiya)

Bioprotezlar, asosan, hayvonlarning yurak qopqog'idan (masalan, buzoq perikardidan) tayyorlanadigan va yurak jarrohlik amaliyotlarida ishlatiladigan sun'iy yurak klapanlaridir. Ular mexanik klapanlarga nisbatan kamroq qon ivishiga olib keladi va odatda yosh bemorlarga tavsiya etiladi.

Afzalliklari:

- Kamroq qon ivish xavfi
- Yosh bemorlarda uzoq muddatli ishlash imkoniyati
- Kamroq antikoagulyant dorilarni talab qiladi

Kamchiliklari:

- Muddati cheklangan (odatda 10–20 yil)
- Yosh bemorlarda tezroq almashtirish talab qilishi mumkin

BIOPROTEZLARNING SAMARADORLIG

1. Yurak bioprotezlari (biologik yurak klapanlari)

Samaradorlik:

- **Funksional ishlashi:** Yurakning qon oqimini to'g'ri yo'naltiradi va yurak faoliyatini tiklaydi.
- **Kamroq qon ivish xavfi:** Biologik klapanlar mexaniklarga qaraganda kamroq antikoagulyant (qonni suyultiruvchi) dori talab qiladi.
- **O‘rnatilgandan so‘ng hayot sifati oshadi:** Nafas qisishi, charchoq kabi alomatlar kamayadi.

Statistik natijalar:

- Odatda 10–20 yilgacha xizmat qiladi.
- 10 yildan so‘ng yangilanish ehtiyoji tug‘ilishi mumkin, ayniqsa yosh bemorlarda.

Kamchiliklari:

- Mexanik protezlarga qaraganda qisqaroq xizmat muddati.
- Yana almashtirish operatsiyasiga ehtiyoj tug‘ilishi mumkin.

Odam yuragi fiziologiyasi

Yurak faoliyati miokardning ritmik qisqarishiga asoslangan. Yurak qisqarishi sistola, bo'shashishi diastola deyiladi. Yurak avtomatik tarzda qisqaradi. Miokardning qisqarishini ta'minlaydigan impulsar yurakning o'tkazuvchi sistemasida hosil bo'ladi. Sinus tugunida normada minutiga 60-80 marta hosil bo'ladigan bu impulsar avval bo'lmacha miokardiga tarqalib, undan bo'lmacha-qorincha tuguni hamda Gis tutami va Purkine tolalari orqali qorinchalar miokardiga o'tadi va ular qisqarishiga sabab bo'ladi. Qorinchalarga o'tish vaqtida impulsarning tezligi pasayadi. Shu sababli qorinchalarnikiga nisbatan bo'lmachalar qisqarishi tezroq tugallanadi.

Yurakning qisqarish va bo'shashish davri yurak siklini tashkil etadi. Bu sikl bo'lmachalar sistolasi (0,1 sek), qorinchalar sistolasi (0,33-0,35 sek), diastola (qorinchalar va bo'lmachalar birgalikda bo'shashish fazasi) hamda pauza (0,4 sek) dan iborat.

Bo'lmachalar qisqarganda ulardagi qon bosimi (o'ng bo'lmachada simob ustuni hisobida 1-2 mm dan 6-9 mm gacha, chap bo'lmachada 8-9 mm gacha) ko'tariladi. Natijada qon klapanlar orqali qorinchaga o'tadi.

Bo'lmachalar qisqarganda qorinchalarga qonning faqat 30% i chiqib, 70% i umum pauza vaqtida bimalol oqib keladi.

Qorinchalar sistolasi ham fazalarga bo'linadi. Qorinchalar bosimi oshganda bo'lmacha-qorincha klapanlari yopiladi, lekin yarimoysimon klapanlari ochilmaydi.

Bunda (izometrik qisqarish fazasi) qorinchalarning barcha muskul tolalari qisqarib, tarangligi tobora kuchayadi. Natijada, qorinchalar bosimi aorta va o'pka poyasidagi bosimdan ham oshgach, yarimoysimon klapanlar ochiladi; qon qorinchalardan tomirlarga otilib chiqadi; qonni haydash fazasi shu tariqa boshlanadi

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BOSHLANG'ICH TA'LIMNING DIDAKTIK TA'MINOTINI TIZIMLI TARKIBLASHTIRISHDA MODELLASHTIRISH METODIKALARIDAN FOYDALANISH

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1- kurs talabasi

Annotatsiya: Ushbu maqolada boshlang'ich ta'limning didaktik ta'minotini tizimli tarkiblashtirishda modellashtirish metodikalaridan foydalanishning ahamiyati va samaradorligi ko'rib chiqiladi. Modellashtirishning turli turlari, ularni boshlang'ich sinflarda qo'llash yo'llari va tizimli tarkiblashtirish prinsiplari tahlil qilinadi. Boshlang'ich sinf o'quvchilarining dars jarayonidagi kuzatuvlari modellashtirishning o'quv materiallarini o'zlashtirish darajasini oshirishga ijobiy ta'sirini ko'rsatdi. Shuningdek, amaliy misollar va metodik tavsiyalar keltiriladi.

Kalit so'zlar: boshlang'ich ta'lim, didaktik ta'minot, modellashtirish, modellashtirish metodikalari, tizimli tarkiblashtirish, o'zlashtirish darajasi, kuzatish.

Modellashtirishning mohiyati va ahamiyati

Modellashtirish - o'rganilayotgan ob'ekt, hodisa yoki jarayonning soddalashtirilgan nusxasini yaratish va tahlil qilish orqali ma'lumot olish usuli.

Model asl ob'ektning asosiy xususiyatlarini aks ettiradi, lekin uni soddalashtiradi.

Ta'limda modellashtirish o'quvchilarga murakkab tushunchalarni tushunishga, o'zaro bog'liqliklarni aniqlashga, amaliy ko'nikmalarni rivojlantirishga yordam beradi.

Modellashtirish turlari va ulardan foydalanish

Ko'rgazmali, belgili, aqliy va o'yinli modellar kabi turli xil modellashtirish ko'rinishlari mavjud.

Boshlang'ich ta'limda har bir model turidan o'rinli foydalanish muhimdir.

Modellashtirishga qo'yiladigan talablar

Modellar ko'rsatuvli, tushunarli, sodda va o'quvchilarning yoshiga mos bo'lishi kerak.

O'quvchilar model yaratish va o'rganishda faol ishtirok etishlari zarur.

Modellar amaliy ahamiyatga ega bo'lishi va kundalik hayot bilan bog'liq bo'lishi lozim.

Modellashtirish metodikalarini turli fanlarda qo'llash

Ona tili, matematika, tabiatshunoslik, tasviriy san'at va texnologiya kabi fanlarda modellashtirish metodikalaridan foydalanish mumkin.

Har bir fanning o'ziga xos xususiyatlaridan kelib chiqib, mos modellashtirish usullarini qo'llash kerak.

Modellashtirishni tizimli tarkiblashtirish

Modellashtirishni shunchaki epizodik qo'llash emas, balki o'quv jarayonining ajralmas qismiga aylantirish zarur.

O'quv dasturiga integratsiya, o'qituvchining tayyorgarligi, o'quv materiallari bilan ta'minlash, o'quvchilarning faolligi va baholash kabi jihatlarga e'tibor qaratish lozim.

Boshlang'ich ta'lim - bu ta'lim tizimining muhim bo'g'ini bo'lib, yosh avlodni har tomonlama kamol toptirish, ularni mustaqil hayotga tayyorlashda muhim rol o'ynaydi. Zamonaviy ta'limda o'qitish sifatini oshirish, o'quvchilarni faol o'qitish metodlaridan foydalanish dolzarb vazifalardan biri hisoblanadi. Modellashtirish metodikalarini o'quvchilarga murakkab tushunchalarni soddalashtirilgan shaklda taqdim etish, ularning faolligini oshirish va o'zlashtirish darajasini yaxshilash imkonini beradi. Shuningdek, ta'limda individual yondashuvni ta'minlash, har bir o'quvchining o'ziga xos xususiyatlarini hisobga olish muhimdir, modellashtirish esa bu borada keng imkoniyatlar yaratadi. Biroq, boshlang'ich ta'limda didaktik ta'minotni tizimli tarkiblashtirishda, xususan, modellashtirish metodikalaridan foydalanishda bir qator muammolar mavjud. O'qituvchilarning ko'pchiligi modellashtirish metodikalarini qo'llash bo'yicha yetarli bilim va ko'nikmalarga ega emaslar. Boshlang'ich sinflar uchun mos modellar yaratish yoki topish qiyin bo'lishi mumkin. Modellashtirish jarayoniga yetarli vaqt ajratilmasligi, modellashtirish uchun zarur bo'lgan materiallar va texnik vositalarning yetishmasligi ham muammolardan biridir. Bundan tashqari, o'quvchilarning individual xususiyatlarini hisobga olgan holda modellashtirishni tashkil etish ham o'ziga xos qiyinchiliklar tug'diradi.

Ushbu maqolaning maqsadi - boshlang'ich ta'limda didaktik ta'minotni tizimli tarkiblashtirishda modellashtirish metodikalaridan foydalanishning samarali yo'llarini aniqlashdan iborat.

Ushbu maqsadga erishish uchun quyidagi vazifalar belgilandi:

1. Modellashtirishning nazariy asoslarini o'rganish.
2. Boshlang'ich ta'limda qo'llaniladigan modellashtirish metodikalarining turlarini aniqlash.
3. Modellashtirish metodikalarini tizimli qo'llash prinsiplarini ishlab chiqish.

4. Modellastirish metodikalarini amaliyotga joriy etish bo'yicha tavsiyalar ishlab chiqish.

Model asl ob'ektning asosiy xususiyatlarini aks ettiradi, lekin uning murakkabligini kamaytiradi, bu esa o'rganish jarayonini osonlashtiradi.

Ta'limda modellastirish o'quvchilarga bir qator afzalliklarni taqdim etadi. Xususan, u murakkab tushunchalarni soddalashtirilgan shaklda tushunishga yordam beradi, ob'ektlar va hodisalar o'rtasidagi o'zaro bog'liqliklarni aniqlashga ko'maklashadi, amaliy ko'nikmalarni rivojlantiradi, tanqidiy va ijodiy fikrlashni rag'batlantiradi hamda o'quv jarayonida faol ishtirok etishga undaydi. Modellastirishning turli xil ko'rinishlari mavjud. Bularga ko'rgazmali modellar (masalan, makatlar, rasmlar, diagrammalar), belgili modellar (sxemalar, grafiklar, formulalar), aqliy modellar (tasavvurlar, tushunchalar) va o'yinli modellar (rolli o'yinlar, simulyatsiyalar) kiradi.

Boshlang'ich ta'limda modellastirishni muvaffaqiyatli qo'llash uchun bir nechta muhim tamoyillarga rioya qilish talab etiladi. Birinchidan, modellar ko'rsatuvli va tushunarli bo'lishi kerak. Ikkinchidan, modellar o'quvchilarning yoshiga va qobiliyatiga mos sodd bo'lishi lozim. Uchinchidan, o'quvchilar model yaratish va uni o'rganish jarayonida faol ishtirok etishlari kerak. Va nihoyat, modellar o'quvchilarning kundalik hayoti bilan bog'liq amaliy ahamiyatga ega bo'lishi kerak.

Boshlang'ich ta'limda modellastirish metodikalarini qo'llash yo'llari" bo'limida har bir fanni batafsil yoritish shart emas. Asosiy g'oyani berib, bir-ikkita misol keltirish kifoya. Masalan, quyidagicha yozishimiz mumkin:

- * Boshlang'ich ta'limda modellastirish metodikalarini turli fanlarni o'qitishda muvaffaqiyatli qo'llash mumkin.

- * Ona tilida so'zlarni guruhlash, gap sxemalarini tuzish, matn rejasini tuzish kabi usullar qo'llaniladi.

- * Matematikada sonlarni ko'rgazmali qurollar yordamida modellastirish, geometrik shakllarni yasash, masalalarni sxemashtirish orqali o'qitish samaradorligi oshiriladi.

- * Tabiatshunoslikda o'simlik va hayvonlarning tuzilishini, tabiiy hodisalarni modellastirish orqali o'quvchilarning bilim olish jarayoni qiziqarli va tushunarli bo'ladi.

- * Tasviriy san'atda kompozitsiya qonuniyatlarini modellastirish, hajmli shakllar yasash kabi usullar o'quvchilarning ijodiy qobiliyatlarini rivojlantiradi.

- * Texnologiyada oddiy buyumlar va mexanizmlarni modellastirish orqali o'quvchilarning amaliy ko'nikmalari shakllanadi.

Bu metodikalarni qo'llash o'qituvchidan ijodiy yondashuvni, o'quvchilarning yosh xususiyatlarini hisobga olishni talab etadi.

Modellashtirish metodikalarini tizimli tarkiblashtirish.

Tizimli tarkiblashtirish deganda nima tushuniladi? Bu shunchaki darsda vaqti-vaqti bilan modellashtirishdan foydalanish emas, balki uni o'quv jarayonining ajralmas qismiga aylantirishdir.

Quyidagi jihatlarga e'tibor qaratishimiz mumkin:

- * O'quv dasturiga integratsiya: Modellashtirish metodikalari o'quv dasturining maqsadlari va vazifalariga mos bo'lishi kerak. Har bir mavzu uchun modellashtirishning eng mos usullarini aniqlash va dars rejasiga kiritish zarur.
- * O'qituvchining tayyorgarligi: O'qituvchi modellashtirish metodikalarini yaxshi bilishi va ularni amaliyotda qo'llay olishi kerak. Buning uchun o'qituvchilarni o'qitish va ularga metodik yordam ko'rsatish zarur.
- * O'quv materiallari bilan ta'minlash: Modellashtirish uchun zarur bo'lgan materiallar va texnik vositalar bilan ta'minlash kerak. Bu ko'rgazmali qurollar, kompyuter dasturlari, o'yinlar va boshqa vositalar bo'lishi mumkin.
- * O'quvchilarning faolligi: O'quvchilar modellashtirish jarayonida faol ishtirok etishlari kerak. Ularni model yaratishga, uni tahlil qilishga va o'z fikrlarini bildirishga undash zarur.
- * Baholash: Modellashtirish natijalarini baholash o'quv jarayonining muhim qismi hisoblanadi. Baholash o'quvchilarning bilimini, ko'nikmalarini va faolligini aniqlashga yordam berishi kerak.

Bu jihatlarni hisobga olgan holda, "Modellashtirish metodikalarini tizimli tarkiblashtirish" bo'limini quyidagicha yozishimiz mumkin:

Boshlang'ich ta'lim jarayoniga modellashtirish metodikalarini tizimli ravishda joriy etish o'quv jarayonining samaradorligini oshirishga yordam beradi. Tizimli tarkiblashtirish deganda, modellashtirishni shunchaki vaqti-vaqti bilan qo'llash emas, balki uni o'quv jarayonining ajralmas qismiga aylantirish.

Ushbu maqola boshlang'ich ta'limda didaktik ta'minotni tizimli tarkiblashtirishda modellashtirish metodikalaridan foydalanishning muhimligini ochib beradi..Tadqiqot natijalari shuni ko'rsatdiki, modellashtirish o'quvchilarning o'zlashtirish darajasini sezilarli darajada oshiradi, ularni faol, ijodkor va mustaqil fikrlovchi shaxslar sifatida kamol toptirishga yordam beradi. Shuningdek, modellashtirish metodikalarini tizimli qo'llash orqali o'qitish jarayonining samaradorligi va sifatini yanada yaxshilash mumkinligi aniqlandi. Maqolada o'qituvchilarni modellashtirishga o'rgatish, boshlang'ich sinflar uchun mos modellar yaratish, dars jarayonida modellashtirish uchun zarur sharoitlarni yaratish va modellashtirishning foydalarini chuqurroq o'rganish bo'yicha takliflar berilgan.

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**INGLIZ TILIDA TINGLAB TUSHUNISH BILAN BOG'LIQ
MUAMMOLARNI BARTARAF ETISH HAMDA TINGLAB TUSHUNISH
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**WAYS TO ELIMINATE PROBLEMS RELATED TO LISTENING AND
COMPREHENSION IN ENGLISH AND TO DEVELOP LISTENING SKILLS**

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Annotation: This article examines students' listening problems and the factors that lead to students' comprehension related difficulties. This article also provides instructions on the importance, tasks and goals of listening comprehension skills in teaching foreign languages, especially English, and what to pay attention to its formation.

Key words: listening comprehension, modernized textbooks and manuals, listening materials, podcasts and subtitles.

Annotatsiya: Ushbu maqolada talabalarning eshitish muammolarini o'rganish va talabalarning eshitish bilan bog'liq bo'lgan qiyinchiliklariga olib keladigan omillar bayon etiladi. Shuningdek, ushbu maqolada xorijiy tillarni, xususan, ingliz tilini o'qitishda tinglab tushunish ko'nikmasining ahamiyati, vazifalari va maqsadlari, uni shakllantirishda nimalarga e'tibor qaratish kerakligi bo'yicha ham ma'lumotlar berilgan.

Kalit so'zlar: tinglab tushunish, zamonaviy darsliklar va o'quv materiallari, eshitish materiallari, podkastlar va matnli materiallar.

KIRISH

Inson tinglab tushunish orqali atrofidagi boshqa shaxslardan juda ko'p axborotlar oladi. Bugungi kunda xorijiy tillarni o'rganishda zamonaviy metodik yondashuvlarga, asosan, tinglab tushunish ko'nikmasi eng muhim ko'nikma hisoblanmoqda. O'tgan

asrning 60-yillariga kelib, tinglash nutq faoliyatining bir turi sifatida atroflicha tadqiq etila boshlangan. O'sha vaqtga qadar tinglashga gapirishning uzviy qismi sifatida qarab kelinar edi. Vaqt o'tgan sayin ushbu holat sekin-asta inqilobiy o'zgarishlar bilan bugungi kungacha davom etib keldi. Hozirda global dunyoda til bilish darajasini namoyon etuvchi turli yo'sindagi imtihonlar bo'lib, yoshlar shu imtihon orqali sertifikatlarga ega bo'lishmoqda. Jumladan, IELTS – xalqaro til bilish sertifikati, yoki bo'lmasa mamlakatimizda ayni vaqtda eng keng tarqalgan Multilevel imtihonlarini oladigan bo'lsak, ularning asosida ham o'rganuvchi yoshlarda tinglab tushunish muhim ahamiyat kasb etadi. Shuning uchun ayni ushbu yo'nalishni ham yoshlar orasida keng targ'ib etgan holatda, ulardagi mavjud muammolarni hal etishga yordam berish muhim. Tinglash ko'nikmalarini o'rgatishning zamonaviy samarali usullari hamma narsani o'z ichiga oladi, masalan, interaktiv mashqlardan tortib multimedia resurslarigacha. Tinglash qobiliyati eng yaxshi va eng tez o'rganish mumkin bo'lgan qobiliyat sanaladi. Chunki o'rganishga birozgina ko'proq e'tibor qaratilsa u oddiy va qiziqarli tadbirlar orqali yaxshilanadi va yakunida yaxshi natijalarga olib keladi.

METODOLOGIYA

Ilmiy taraflama masalaga yondashuv qiladigan bo'lsak, xorijiy tillarni tinglab tushunishda bir qancha omillar to'sqinlik qilishi mumkin: nutqning tezligi, tilning ichki funksiyalari va mavjud lug'atning murakkabligi, vaqti-vaqti bilan diqqatni jamlash yoki eshitishning buzilishi kabi holatlar kuzatilishi ehtimoli mavjud.

Shu o'rinda asosiy muammolarga to'xtalib o'taylik:

➤ Nutq tezligi:

Hozirda ko'plab til o'rganuvchilar ingliz tilida gapirilayotgan nutqning tezligi sababli matnni to'liq anglay olmaydi. Nutq davomida nima haqida gap ketayotganini idrok qilgunicha, ancha vaqt o'tib ketadi. Tabiiy inglizabon mamkalatlar nutqida so'zlar odatda, qisqargan holatda og'zaki nutqda ishlatiladi, bunday holatda og'zaki nutqda bir qancha so'zlar bir-biriga ulanadi va ba'zan harflar yoki so'zlar tushib qolishi mumkin.

Masalan, “I want to describe” – “I wanna describe” (tovush tushishi); “Do it now” – “Do-v-it now” (tovush tushirilishi) tarzida og'zaki nutqda talaffuz etilishi kuzatiladi.

➤ Lug'atning murakkabligi:

Tinglab tushunish uchun berilgan maxsus matnlarida murakkab bo'lgan va notanish so'zlar uchraydi. Hamda ushbu jarayon o'rganuvchilarga tinglash va uni tushuna bilish mobaynida atroflicha muammolarni keltirib chiqaradi. Agar unda ma'lum so'zlar bo'lsa, o'quvchilar sinonim – ma'nodosh so'zlar orqali javobga yaqin kelishlari mumkin. Bundan tashqari, aytish mumkinki, yurtimiz turistik markazlarga ega

davlatlardan biri hisoblanadi. Shunday ekan, ko'plab xorijiy mehmonlar oqimi yildan yilga oshib borishi odatiy holat deb ham aytish mumkin. Bunday holatda, "native speakers" ya'ni ingliz tili asosida muloqot qiluvchi mamlakatlardan turistlar ko'pincha yurtimiz turistik markazlari mehmoni bo'lishadi. Ular esa asosan, ingliz tilida mavjud mashhur "idioms" ya'ni idiom avazlaridan foydalanish holatlari ko'p uchraydi. Shu kabi vaziyatlarda ham o'ylash mumkinki, tinglovchi insonlarda turli muammolarni keltirib chiqarishi mumkin. Jumladan, tarjimonlarda og'zaki nutqda ishlatilgan fraza yoki idiomani so'zma-so'z tarjima qilishda xatolik yuzaga kelishi mumkin. Bilamizki, ingliz tilida idioma yoki har xil davlatlarda turli hazillarning "joke" (ingliz tilida) alohida o'zining maxsus ma'nosi mavjud, ularni tushunish uchun so'zma-so'z tarjima qilish esa suhbatdosh bilan muloqotda katta bir muammoni keltirib chiqarishi haqiqatga yaqin hisoblanadi. Negaki, ba'zi mamlakatlarda keltirilgan hazillarni muloqotda ko'p ham ishlatmasliklari ham mumkin. Bundan tashqari, shu kabi holatdan qochish uchun o'rganuvchi inson kontekstlar orqali o'rganishi ham mumkin, hamda video yoki podkastlar orqali tinglagan idiomasini oddiy tarzda emas, balki uni yozib olishi va uni o'z nutqida ko'proq takrorlashi ham juda ham yaxshi ta'sir ko'rsatadi.

Shuningdek, o'rganilayotgan jummalarni keyingi suhbat jarayonlarida ham qo'llab ko'rish, albatta, ularga ancha foydali bo'lib, o'zlarida ham tinglashda ancha yutuqqa erishishlariga sabab bo'ladi. Ushbu jarayon esa ularda tinglash ko'nikmasiga nisbatan qiziqish uyg'otib, shu bilan bir qatorda, o'ziga xos motivatsiya uyg'otishi va yoshlar o'rtasida tinglab tushunish qobiliyatiga ijobiy ta'sir ko'rsatishi mumkin.

➤ **Tinglashning uzoq davom etishi va uzunligi:**

Talabalar uzoq davom etuvchi tinglash mashqalarida ko'pincha, chalg'ish holatlari kuzatilib, berilgan topshiriqqa nisbatan, konsentratsiyani yo'qotib qo'yishadi. Ayni shu holat ularda diqqatni bir joyga jamlashda turli muammolarni yuzaga keltirib, fikrning buzilishiga sabab bo'ladi. Ayrim holatlarda, qisqa davom etuvchi tinglash bilan bog'liq audioparchalar talabalarning tinglab tushunishlarini osonlashishiga imkon beradi va nisbatan qiyinchilikni kamaytiradi.

Shuning asnosida, yosh o'rganuvchilar uchun dastlab, boshlang'ich darajadagi audiomatnlar (GRADED LISTENING) soddalashtirilgan holatda leksikaga va talaffuzga ega bo'lib, o'quvchilar uchun tushunarli bo'ladi. Bu orqali esa tizimli tarzda ularni tinglab tushunish mahoratini oshirib boorish imkonini beradi. Keyinchalik esa to'g'idan to'g'ri muloqot va suhbatlarga kirishish yaxshiroq bo'ladi. Shu bilan bir qatorda, subtitrlar audiomateriallar va videolar tomosha qilgan holatda ham eshitish mahoratini kuchaytirish mumkin. Jumladan, inglizcha subtitrlar kino yoki videolar orqali

ham eshitilgan hamda ko'rilgan materiallar o'zaro bir-birini to'ldiradi. Bu jarayon nafaqat, lug'atni, balki talaffuzni ham mustahkamlashga bevosita yordam beradi.

Shuningdek, kunlik reja bo'yicha har kuni yangi so'zlar, iboralar va ularning talaffuzini eshitish orqalin yodlash ham tinglab tushunishga ijobiy ta'sir qiladi. Ya'niyki, berilayotgan audiomatnlarda keluvchi notanish so'zlar ham asta-sekinlik bilan ma'nodosh so'zlari qatori yodga tushishi oydinlashadi. Yana bir muhim omillardan biri sifatida aytib o'tish ham mumkinki, ayni vaqtda internet eng keng tarqalgan zamonda yashamoqdamiz, hamda hozirda bir qator ijtimoiy tarmoq vositalari orqali biz o'quvchilarni yanada eshitish salohiyatlarini oshirish imkoniyatiga egamiz. Masalan, BBC Learning English va VOA Learning English kabi qulay bo'lgan platformalar orqali kerakli hamyonbop va bepul podkastlarni yuklab olishimiz, shu bilan bir qatorda, ularni sabr bilan tinglagan holatda eshitish imkoniyatini oshirish imkoniyati mavjud. Ushbu platformalarda har bir darajadagi o'rganuvchi yoshlar uchun mos bo'lgan kerakli materiallar joylangan. Eng qulay tomoni shundaki, ushbu audio materiallarni tinglovchilar bemalol yo'lda yoki biron bir transport vositasida ketayotganda, yoki bo'lmasa muhim bir jismoniy ish bilan shug'ullanayotgan bir vaqtda tinglasa bo'ladi.

XULOSA

Xulosa o'rnida shuni aytish kerakki, ushbu maqolada tinglab tushunish qobiliyatini rivojlantirish uchun yuqorida bir nechta metodlar va ko'rsatmalar berildi. Tinglab tushunish ko'nikmasi - bu amaliyot orqali rivojlantirilishi kerak bo'lgan murakkab mahorat. O'qituvchilar o'z shogirdlariga tinglash jarayonlari va uning amaliy tomonlari haqida fikrlash imkoniyatini berishlari kerak. Ingliz tilida tinglab tushunish bilan bog'liq jarayonlarda o'qituvchining o'zni muhim hisoblanadi. Chunki, u tinglash jarayonida ham o'quvchilarga yo'l-yo'riq (Direction) ko'rsatishi hamda ularni turli yo'llar bilan rag'batlantirish jarayonlarini tashkil etishda ishtirok etishi muhim sanaladi. Tinglab tushunish mahorati chet tilini mukammal o'zlashtirishda muhim o'rin tutadi. Mazkur ko'nikmani rivojlantirish uchun sabr-toqat, strategik yondashuv va doimiy amaliyot talab etiladi. Yaxshi rejalashtirilgan tinglab tushunish mashqlari orqali har qanday o'rganuvchi bu ko'nikmasini samarali tarzda rivojlantirishi mumkin. Muhimi — xatolardan cho'chimaslik va o'z ustida tinimsiz ishlashdir.

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SHIFOBAXSH “ZA’FARON” NING XOSSALARI.

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Annotatsiya: ushbu maqola zafaron gulining xususiyatlari, o`shish joyi va o`stirish texnologiyasi haqida keng yoritilgan bo`lib, dorishunoslik va xalq tabobadida qo`llanilish usullari haqida ma`lumotlar keltirilgan.

Kalit so`zi: zafaron, piyoz, changchi, sanoat, parfimeriya, hastalik,...



Za`faron (*Crocus sativus* – *lotin.*) –

sapsarguldoshlarga mansub ko`p yillik o`tsimon tuganak piyozli o`simlik. Yovvoyi holda uchramaydi. Hindiston, Pokiston, Xitoy, Janubiy Yevropa, Ozarbayjonda katta maydonlarda ekiladi. Piyozining diametri 1-2 santimetr. Bargi 5-15 ta, och sariq rangda; eni 2 mm, tuksiz.

Guli 1-4 ta, gultoqi oqish, pastki qismi

(tashqi tomondan) binafsha rang, uzunligi 2-4 sm. Changchilari gulqo`rg`ondan qisqa. Ko`sagi cho`ziq, eni 6-7 mm.

Fevral-iyulda gullaydi, aprel—avgustda meva beradi. Tarkibida efir moyi bo`lgani uchun hidi juda o`tkir va yoqimli. 90-100 ming dona za`faron gulidan 1 kg

qurigan gul tumshuqchalari olinadi. Za'faron gulining quritilgan tumshuqchalari murabbo, tortlar rangi va ta'mini yaxshilash, oziq-ovqat (pishloq, sariyog', likyor va boshqalarda rang berish uchun), parfyumeriya (atir-upa) sanoatida ishlatiladi. Tabobatda dori-darmon sifatida qo'llaniladi. Za'faron o'rta asrlardan beri bahosi va qadri tushmay kelayotgan yagona ziravordir. O'rta asrlarda bir qadoq (450 g) za'faronni zotli arab chopqir otiga ayirboshlash mumkin bo'lgan.

Za'faron haqida tarixiy manbalar

Bu ziravorning nomi deyarli hamma tillarda arabcha "sariq" ma'nosini beradigan "Za'faron" so'zidan olingan bo'lib, qadimda mazkur noyob o'simlikdan bo'yoqlash moddasi sifatida foydalanilganidan dalolat beradi. Hozirgi davrda za'faron o'zining azaliy ahamiyatini yo'qotib, asosan pazandalikda ishlatiladi va oltin bilan teng baholanadigan yagona ziravordir. Yer yuzida bugungi kunda yiliga faqat uch yuz tonna za'faron yetishtiriladi. *(2017-yil holatiga ko'ra)*

Ma'lumki, za'faron insoniyatga ziravor sifatida iste'mol qilinishi to'rt ming yildan ko'proq tarixga ega bo'lib, bo'yoq sifatida neolit davrida tog'larda qoya toshlariga rasm chizishda ishlatilgan. Qadimgi Mesopotamiyada uni taomda ishlatilgan izlari arxeologlar tomonidan aniqlangan. Yozuvlarda u haqda birinchi eslatmalar Shumer sivilizatsiyasi qoldiqlarida kuzatiladi. Eronda eramizdan avvalgi X asrda za'faron tolalarini qurbonlik o'raladigan matolarni bo'yashda ishlatilgan, undan shuningdek kuchli tomizg'i sifatida foydalanib, attorlik mollari va lazzatli yog'lar tayyorlashgan. Iskandar Zulqarnayn armiyasida jarohatlarni davolashda ishlatilgan. Qadimgi Ahdda (Tavrotda) za'faron qurbonlik qilishda yordamchi vosita, bo'yoqchilik va attorlik moddasi sifatida ishlatilishi haqida bitilgan. Qadimgi Xitoy manbalarida shifobaxsh dori vositasi sifatida eslatilgan. Sharqda budda monaxlari liboslarini bo'yash uchun ishlatilgan. Yevropada uni ishlatgan boylar jamiyatda kiborlar tabaqasiga mansubligini ifodalagan. Rim arkoni davlati za'faronni dori sifatida, teri va matolarga bo'yoq, attorlik moddasi sifatida ishlatgan. U – eng mazali ziravor, sifatli tabiiy bo'yoq moddasi va qimmatbaho attorlik vositasi, hamma dardlarga davo bo'luvchi moddadir.

Sharqda ilgarilari u "qizil oltin" deb nomlangan. Za'faron qim-matbaholigining sababi ikkita: birinchidan, uni yetishtirish juda mashaqqatli ish, ikkinchidan,

xushbo'yligi, ta'mi va davolash xususiyatlari bo'yicha za'faron ziravorlar orasida tengsizdir.

Za'faronning rivojlanishi va tarkibiy moddalari

Za'faron – yiliga bir marta 10-15 kun ommaviy gullaydigan, har bir gul ochilishining davomiyligi faqat 2-3 kun bo'lgan qirmizi “krokus” (lotincha nomi) onalik guli tumshuqlarining quritilganidir. Za'faron gullari va xususan onalik gullarini qayta ishlash faqat qo'l mehnati bilan amalga oshiriladi. Onalik gullari tumshug'i faqat gullarning birinchi ochilgan kuni qirqib olinishi lozim. Uning sifati terim va uni quritishning tezligi bilan bog'liqdir. Bir kilogramm za'faron yig'ish uchun tongda quyosh hali onalik gullarini quritib ulgurmasidan, 150 ming dona atrofidagi guli terib olinishi lozim. Bir gektar yer maydonidan terimchilarning mahorati va ob-havoning munosib sharoitiga qarab 8-12 kilogramm za'faron yig'ib olish mumkin.

Za'faronning kimyoviy tarkibi 10-12 % suv, 5-7 % mineral moddalar, 5-8 % moy va mo'm, 12-13 % oqsil va eng oz miqdorda yog' ekstraktidan iborat o'ziga xos va xushbo'y yoqimli moddalardan tarkib topgan.

Za'faronning inson salomatligiga doir xususiyatlari

Qadimgi zamonlardan ma'lumki, u nodir va bemsil xususiyatlarga ega. U og'riqni qoldiruvchi, quvonch va xursandchilik baxsh etuvchi, tushkunlikdan chiqaruvchi, quvonch gormoni – serotonin ishlab chiqarish xususiyatiga egadir. Shunday qilib, za'faron – inson doimiy iste'mol qilishga o'rganib qolmaydigan, yengil psixotrop moddadir.

Hakim Ayurveda za'faronni hazm taomni yaxshilashga, sezgi va nafas olish organlarini mustahkamlashga, jigar, buyraklar, limfa bezlarini tozalashga, titroqni bosishga, tomirlarda to'xtagan qonni yurgizishga, yuz rangini tiniqlashga, jinsiy quvvatni faollashtirishga ham xizmat qilishini ta'kidlagan. Qadimda kibarlar jamiyatiga mansub ayollar tug'ish oldidan og'riqni yengillashtirish maqsadida za'faron eritilgan suvni ichishgan.

Zamonaviy tibbiyotda u ko'zga tomiziladigan dori tayyorlashda va umumiy quvvatlantiruvchi turli dori-darmonlar tayyorlashda ishlatiladi. Za'faronning

antikanserogen va antimutagen xususiyatlarga egaligi isbotlangan. Uni qaynoq sut bilan ichilsa, bosh miya faoliyatini mustahkamlab, xotirani kuchaytiradi. Agar asal bilan iste'mol qilinsa, buyrakdagi toshlarni maydalanishiga yordam beradi. Za'faron guli tumshuqlari eritmasi inson organizmiga zarur bo'lgan karotin, tiamin, riboflamin, flavonoidlar, kalsiy, fosfor kabi moddalarga va turli vitaminlarga boy. To'rt ming yillik ishlatish tarixida uning to'qson xil turli kasalliklarni davolashda qo'llanishi aniqlangan.

Za'faronning xushbo'y hidini hidlash insonni nafas olish organlariga ijobiy ta'sir qilib tinchlantiradi va uyqusizlikdan qutilishga yordam beradi. Kuchli bosh og'rig'ida va quloq shamollaganida za'faron suvida paxta yoki yumshoq matoni ho'llab kasal a'zoga bosilsa, og'riqni qoldiradi. Bundan tashqari u qorin ochish hissini ham kamaytiradi.

Za'faron me'yoridan oshirib ishlatilsa, sezgi organlarini qattiq zo'riqishiga olib kelishi mumkin. Me'yordan ko'p ovqatga qo'shilgan za'faron taomni buzishdan tashqari insonni zaharlanishga, bir necha gramm yangi uzilgan sifatli za'faron iste'mol qilinishi, o'limga ham sabab bo'lishi mumkin. Mutaxassis maslahatisiz homilador ayollarga tinchlantiruvchi vosita sifatida iste'mol qilish tavsiya etilmaydi.

Za'faron xarid qilishda yanchilib maydalanganini emas, balki butun tolali gullarini olish maqsadga muvofiq bo'ladi. Bundan ikki ming yil avval Pliniy yanchilgan za'faron qalbaki bo'lishi mumkinligi haqida ogohlantirgan. O'rta asrlarda za'faronni soxtalashtirgan kishi gulxan o'tida yoqilgan. Haqiqiy za'faron hech qachon arzon narxda sotilmagan. Uni uzoq saqlab bo'lmaydi, shuning uchun oldindan olib qo'yib bo'lmaydi

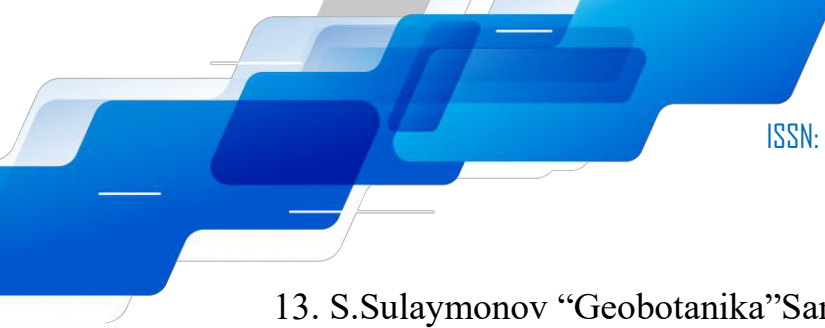
Za'faronning shifobaxsh xossalari

Za'faron ovqat hazm qilishni yaxshilab, ishtahani ochadi, organizmning hayotiy faolligini yaxshilaydi, kishilar undan oshqozon, yurak, jigar nafas olish a'zolari va asab tizimini mustahkamlashda, buyraklarni tozalashda, og'riqni qoldirishda, tinchlantiruvchi, peshob, o't va ter haydovchi vosita sifatida foydalanishadi. Lekin homiladorlikda uni iste'mol qilib bo'lmaydi, chunki u homilani muddatidan oldin tushishiga sabab bo'lishi mumkin.

Za'faron dorishunoslik sanoatida keng ishlatiladi, u sharq tabobatining 300 dan ortiq dori-darmonlari tarkibiga kiradi. Uning damlamasi bilan qadimda kataraktani davolashgan, hozirgi vaqtda ham u ko'zga tomiziladigan dorilar tarkibiga qo'shiladi. Za'faron butun organizm hujayralarini oziqlantiradi, terini silliq qiladi, rangni tiniqlashtiradi, xotira va aqliy faoliyatni yaxshilaydi, kayfiyatni ko'taradi. Za'faron 100 dan ortiq xastaliklarni davolovchi shifobaxsh xossalarga ega. Amalda har qandalik xastalik, u boshlanish bosqichidami yoki rivojlangan oxirgi bosqichidami, bundan qat'iy nazar, za'faron yordamida 85-87 % ga shifo topadi. Tadqiqotlar buni qayta-qayta isbotlagan.

Foydalanilgan adabiyotlar:

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THE IMPORTANCE AND PROBLEM OF WATER RESOURCES

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Annotation: The causes of water scarcity include climate change, population growth, pollution of water bodies, and inefficient use of resources.

The article highlights the importance of water in nature and the solution to the problem of water scarcity, the development of seawater desalination technologies, modern methods such as reverse osmosis, which make it possible to obtain fresh water from seawater, etc.

Keywords: the source of life, water scarcity, water supply problems, wastewater treatment. biological processes,

Today, about 2 billion people in the world are experiencing a shortage of clean drinking water.

The reasons for the shortage include climate change, population growth, pollution of water bodies, and inefficient use of resources [1, p. 52]. In some regions (for example, in Africa and the Middle East), water scarcity leads to serious humanitarian crises, forced migration of the population, and exacerbation of conflicts over access to water sources.

Large cities also face water supply problems due to depletion of groundwater aquifers and surface water pollution. Solving the problem of water scarcity requires an integrated approach at the global and local levels. The main areas of action include:

- Development of seawater desalination technologies. Modern methods, such as reverse osmosis, make it possible to obtain fresh water from seawater [2, p. 38]
- Rational use of water resources. This includes the use of drip irrigation in agriculture, the use of water-saving technologies in industry and everyday life.;

Wastewater treatment. Recycling and reuse of water can reduce the burden on natural sources.;

- Protection of fresh water sources It is important to prevent pollution of rivers, lakes and groundwater by industrial waste and household garbage;
- Raising public awareness. Educational campaigns help to create a responsible attitude towards water consumption.

According to experts, the introduction of effective water-saving technologies can reduce water scarcity by 40% by 2050 [3, p. 74].

Since ancient times, water has played a crucial role in the development of human civilization. The first great civilizations that flourished in ancient times were those that were located in the basins of large rivers. Egyptian, Mesopotamian, Indian, and Chinese civilizations were based on water resources.

For example, in ancient Egypt, the Nile River was a source of life, providing agriculture with the necessary moisture and waterways for trade and communications.

In Mesopotamia, the inhabitants used irrigation of the Tigris and Euphrates rivers to grow crops in arid conditions.

In addition, the role of water in the myths and religions of ancient peoples was especially significant: water often represented the source of life and divine power. Water was used in rituals of purification and healing, in religious ceremonies and rituals. Water plays a key role in regulating the Earth's climate. This is due to its high heat capacity, which allows it to accumulate and redistribute heat. The water in the oceans, seas and lakes regulates the temperature, ensuring the stability of climatic conditions on the planet.

Oceans occupy about 71% of the Earth's surface and are able to absorb a huge amount of heat from the Sun. Due to their mass and thermal inertia, they can regulate climatic fluctuations for long periods. For example, carbon dioxide accumulates in the oceans, which affects the greenhouse effect and global warming. The process of evaporation of water from the surface of the oceans also plays an important role in the climate system. Water evaporating into the atmosphere condenses into clouds, which contributes to precipitation. These processes form sedimentary zones and climatic zones on Earth.

Water in the atmosphere (in the form of water vapor) is the basis for the formation of clouds, rain and snow. The process of condensation of water vapor forms clouds, which can then lead to precipitation. It is an important element of the water cycle in nature.

In addition, water also plays an important role in cycles such as El Niño and La Niña, which have a strong impact on climate conditions around the world. These phenomena are caused by abnormal fluctuations in water temperature in the Pacific Ocean and have a significant impact on the weather in different parts of the world.

The role of water in nature and human life cannot be overestimated. It is the basis of all biological processes, the source of life for all existing forms of life. Water is a

necessary element for the maintenance of life on Earth, and its deficiency can lead to serious consequences for ecosystems and human civilization.

In this regard, it is necessary not only to take care of water resources, but also to develop new water treatment technologies, improve water resources management, and look for new ways to solve water scarcity problems. It is important that everyone understands their role in the conservation of water resources and participates in solving global problems related to water scarcity.

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HUDUD XIZMAT KO'RSATISH SOHASIDA RAQAMLI TEXNOLOGIYALARNING SAMARADORLIGINI OSHIRISH YO'LLARI

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Annotatsiya

Ushbu maqolada hududiy xizmat ko'rsatish tizimida raqamli texnologiyalarning qo'llanilishi va ularning samaradorlik darajasini oshirishga bo'lgan ta'siri tahlil qilinadi. Raqamli transformatsiya nazariy asosda ko'rib chiqilib, xalqaro amaliyot misollarida raqamli xizmatlarning qanday joriy etilganligi tahlil qilinadi. O'zbekiston misolida raqamlashtirish jarayonining yutuqlari, mavjud infratuzilmaviy va boshqaruv muammolari yoritiladi. Tadqiqot natijalariga ko'ra, hududiy xizmat ko'rsatish samaradorligini oshirish uchun sun'iy intellekt, mobil texnologiyalar, yagona integratsiyalashgan platformalar va raqamli savodxonlikni rivojlantirish zarurligi asoslab berilgan. Yakuniy qismda esa amaliy tavsiyalar orqali strategik takliflar keltirilgan.

Kalit so'zlar: Raqamli texnologiyalar, Hududiy xizmat ko'rsatish, Raqamli transformatsiya, Samaradorlik, Sun'iy intellekt, E-xizmatlar, Mobil xizmatlar, Raqamli savodxonlik

Kirish

So'nggi yillarda global miqyosda xizmat ko'rsatish sohasida raqamli texnologiyalarning joriy etilishi sezilarli darajada jadallashdi. Ayniqsa, mahalliy (hududiy) darajada aholiga davlat va xususiy xizmatlar ko'rsatishda raqamlashtirish jarayonlari samaradorlikni oshirish, xarajatlarni kamaytirish va aholining qoniqish darajasini ko'tarish kabi muhim natijalarni bermoqda. Zamonaviy raqamli texnologiyalar — mobil ilovalar, sun'iy intellekt, ma'lumotlar tahlili platformalari, bulutli texnologiyalar — hududiy xizmat ko'rsatish sifatiga yangi yondashuvlarni olib kirmoqda.

O'zbekiston Respublikasi Prezidenti tomonidan 2020–2023 yillarda e'lon qilingan raqamlashtirish strategiyalarida ham “raqamli hudud” konsepsiyasi alohida e'tiborga olingan. My.gov.uz, Yagona interaktiv davlat xizmatlari portali (YIDXP) kabi

platformalar xizmat ko'rsatishda byurokratik to'siqlarni kamaytirishda muhim vosita bo'lib xizmat qilmoqda. Biroq, raqamli texnologiyalarni hududiy xizmat ko'rsatish tizimiga to'liq integratsiyalash, barcha aholiga teng sharoitda foydalanish imkonini yaratish, infratuzilma va kadrlar salohiyati kabi muammolar hali ham dolzarb bo'lib qolmoqda.

Mazkur maqolada hududiy xizmat ko'rsatish sohasida raqamli texnologiyalarning samaradorlik darajasini aniqlash, mavjud muammolarni tahlil qilish hamda takomillashtirish yo'llarini ishlab chiqish maqsad qilib olingan. Tadqiqotda ilg'or xalqaro tajribalar, O'zbekiston misolida mavjud dasturlar va ularning natijalari, shuningdek statistik ko'rsatkichlar asosida baho beriladi.

Nazariy asoslar

Raqamli transformatsiya tushunchasi

"Raqamli transformatsiya" — bu faqatgina texnik vositalarni joriy qilish emas, balki xizmat ko'rsatish jarayonlarini butunlay qayta ko'rib chiqish, avtomatlashtirish va optimallashtirish demakdir. Mahalliy boshqaruv organlari va xizmat ko'rsatish tashkilotlari uchun bu o'zgarishlar ma'lumotlarni real vaqt rejimida tahlil qilish, foydalanuvchilarning ehtiyojlarini oldindan aniqlash va resurslarni samarali taqsimlash imkonini beradi.

Xizmat ko'rsatish sohasining raqamli texnologiyalarga moslashuvi

Xizmat ko'rsatish sohasi — transport, sog'liqni saqlash, ta'lim, kommunal xizmatlar, bank, pochta va boshqa tarmoqlar — bugungi kunda IT infratuzilmasi orqali tezkor, shaffof va interaktiv xizmat ko'rsatish yo'liga o'tmoqda. Jumladan:

- Elektron hukumat (e-gov) orqali davlat xizmatlari raqamlashtirilmoqda.
- CRM (Customer Relationship Management) tizimlari orqali foydalanuvchi ehtiyojlari aniqlanmoqda.
- GIS (Geoinformatsion tizimlar) hududiy xizmatlarda qo'llanilmoqda.
- Big Data asosida xizmat sifati monitoringi amalga oshirilmoqda.

Xalqaro amaliyotdan yondashuvlar

Turli davlatlarning tajribasi shuni ko'rsatadiki, raqamli texnologiyalarning joriy etilishi xizmat ko'rsatish samaradorligini sezilarli darajada oshirgan:

Estoniya: butun mamlakat bo'ylab 99% xizmatlar onlayn amalga oshiriladi.

Hindiston: Digital India tashabbusi orqali mahalliy tibbiy xizmatlar, kadastr va ijtimoiy yordam tizimlari raqamlashtirilgan.

Janubiy Koreya: Smart City platformalari orqali hududiy boshqaruv real vaqtda monitoring qilinadi.

- Samaradorlik ko'rsatkichlari

Xizmat ko'rsatish tizimining samaradorligini o'lchashda quyidagi ko'rsatkichlar muhim hisoblanadi:

Xizmat ko'rsatish vaqti: xizmatni olish uchun sarflanadigan vaqt qisqarishi

Xizmat sifati: foydalanuvchi qoniqish darajasi

Xarajat samaradorligi: byudjet mablag'laridan oqilona foydalanish

Foydalanuvchi ishtiroki: aholi tomonidan bildirilgan fikrlar va shikoyatlarning qayta ishlanish darajasi

Bu ko'rsatkichlar raqamli texnologiyalar joriy etilgandan keyin yaxshilanayotganini ko'rsatadi va hududiy darajadagi xizmatlarni strategik tahlil qilishda ishlatiladi.

O'zbekistondagi holat tahlili

Raqamlashtirish jarayonining asosiy bosqichlari

O'zbekiston Respublikasi so'nggi yillarda raqamli texnologiyalarni turli sohalarga joriy etish bo'yicha faol islohotlar olib bormoqda. 2020–2023 yillarda amalga oshirilgan "Raqamli O'zbekiston – 2030" strategiyasi doirasida davlat xizmatlarini elektronlashtirish, hududiy markazlarda yagona axborot tizimlarini joriy etish va raqamli savodxonlikni oshirish bo'yicha qator chora-tadbirlar amalga oshirildi.

Eng muhim bosqichlar quyidagilar:

- my.gov.uz — Yagona interaktiv davlat xizmatlari portali (hozirda 300 dan ortiq xizmatlar mavjud);
- soliq.uz, davxizmat.uz — soliq va aholi xizmatlarini elektron shaklga o'tkazish;
- "E-MIB" platformasi — Majburiy ijro byurosining ish jarayonlarini avtomatlashtirish;
- Hududiy hokimliklar qoshida raqamli xizmat ko'rsatish markazlari ochilishi (ayniqsa Andijon, Buxoro va Toshkent viloyatlarida);

Hududiy tafovutlar

Raqamli texnologiyalar joriy etilishi bo'yicha markaziy shaharlarda (Toshkent shahri, viloyat markazlari) sezilarli ijobiy o'zgarishlar kuzatilayotgan bo'lsa-da, chekka hududlar (masalan, Qoraqalpog'iston, Surxondaryo, Jizzaxning ayrim tumanlari)da texnik infratuzilmaning sustligi, internet tezligining pastligi va kadrlar salohiyatining yetishmasligi kabi muammolar mavjud.

Statistikaga ko'ra (Raqamli texnologiyalar vazirligi, 2023):

- Internet orqali davlat xizmatlaridan Toshkentda 72% aholi foydalanmoqda,
- Buxoro va Samarqandda bu ko'rsatkich 50-55%,
- Surxondaryo va Qoraqalpog'istonda esa 35% dan kam.

Muammolar

1. Texnik infratuzilma yetishmovchiligi

Ayni paytda barcha tuman markazlarida barqaror yuqori tezlikdagi internet mavjud emas.

2. Axborot tizimlari o‘zaro integratsiyasining pastligi

Ko‘plab xizmatlar turli platformalarda bo‘lib, yagona baza yoki foydalanuvchi interfeysi mavjud emas.

3. Kadrlar va raqamli savodxonlik yetishmasligi

Hududiy davlat xizmatlarida ishlovchi xodimlarning aksariyati raqamli tizimlarda ishlash bo‘yicha malakaga ega emas.

4. Aholining raqamli texnologiyalarga ishonchi pastligi

Ayrim hududlarda aholi elektron xizmatlardan foydalanishga hali ham ehtiyotkorona yondashadi (shu jumladan xavfsizlik va ma‘lumotlar maxfiyligi bilan bog‘liq xavotirlar sababli).

5. Tadbirkorlar faoliyatining raqamli monitoringi tizimi mavjud emas

O‘zbekistonda raqamli xizmatlar jadal rivojlanayotgan bo‘lsada, xizmat ko‘rsatish sohaslarida faoliyat yuritayotgan xususiy tadbirkorlar uchun soha ixtisoslashuviga moslashtirilgan raqamli yechimlar yetarli darajada ishlab chiqilmagan. Ayni paytda tadbirkorlar o‘z biznes ko‘rsatkichlarini raqamli shaklda yuritish, tahlil qilish yoki davlatga integratsiyalashgan tarzda taqdim etish imkoniyatiga ega emas. Bu esa, bir tomondan, biznes faoliyatining samaradorligiga salbiy ta‘sir etsa, ikkinchi tomondan, davlatning sektorlar bo‘yicha real vaqt rejimidagi statistikasi shakllantirish imkoniyatlarini cheklaydi. Aholiga bevosita xizmat ko‘rsatuvchi — savdo, tikuvchilik, go‘zallik saloni, avtoservis kabi sohalarda bu holat ayniqsa yaqqol seziladi.

Samaradorlikni oshirish yo‘llari

Hududiy xizmat ko‘rsatish sohasida raqamli texnologiyalarni joriy etish orqali samaradorlikni oshirish nafaqat texnik infratuzilmani yaxshilash, balki boshqaruv yondashuvlarini ham raqamli transformatsiyalashni talab etadi. Quyida ushbu yo‘nalishda tavsiya etiladigan asosiy strategiyalar va mexanizmlar keltiriladi:

1. Sun‘iy intellekt va ma‘lumotlarni tahlil qilish tizimlarini joriy etish

Sun‘iy intellekt (SI) vositalari yordamida xizmatlar uchun arizalarni avtomatik ko‘rib chiqish, odatiy savollarga javob berish (chatbotlar orqali), foydalanuvchi ehtiyojlarini oldindan aniqlash va navbatlarni optimallashtirish mumkin. Misol: xizmat ko‘rsatish tezligi va sifatiga doir Big Data asosida qaror qabul qilish.

Amaliy misol: Hindistonda "AI for Good Governance" loyihasi orqali SI yordamida 24/7 raqamli xizmatlar yo‘lga qo‘yilgan.

2. Yagona integratsiyalashgan platformalarni yaratish

Xizmat ko'rsatishning yagona "super platformasi" orqali barcha tuman va shaharlar bir tizimda bog'langan bo'lishi zarur. Har bir foydalanuvchi bitta login orqali barcha davlat xizmatlariga kirish huquqiga ega bo'lishi — zamonaviy "Digital ID" tizimi orqali amalga oshiriladi.

Taklif: "Hudud24" kabi yagona raqamli boshqaruv platformasi ishlab chiqilishi.

3. Mobil ilovalar orqali xizmatlarni qulaylashtirish

Aksariyat aholining mobil telefonlardan foydalanishi hisobga olinib, xizmatlar uchun alohida mobil ilovalar yaratish samarali bo'ladi. Masalan, mahalliy soliq to'lovlari, shikoyatlar yuborish, kommunal xizmatlar monitoringi, onlayn navbat olish.

Misol: Estoniyada aholi 99% davlat xizmatlaridan mobil ilovalar orqali foydalanadi.

4. Raqamli savodxonlikni oshirish bo'yicha mahalliy treninglar

Xizmat ko'rsatishdagi eng katta to'siqlardan biri — kadrlar va aholi orasida raqamli savodxonlikning yetarli emasligi. Buni bartaraf etish uchun har bir hududda raqamli savodxonlik markazlarini ochish va qisqa onlayn kurslarni tashkil etish zarur.

Taklif: Xalq ta'limi va OTM bilan hamkorlikda "Raqamli xodim – 2025" dasturini ishlab chiqish.

5. Monitoring va baholash tizimini kuchaytirish

Xizmat sifati, foydalanuvchi qoniqish darajasi, texnik ishlash samaradorligini real vaqtda monitoring qilish uchun "feedback analytics" tizimi joriy etilishi kerak. Har bir xizmat foydalanuvchisi xizmatdan so'ng mobil/sayt orqali baho berishi va bu reyting orqali xizmatlar takomillashtiriladi.

Misol: Buyuk Britaniyada GOV.UK portali orqali barcha xizmatlar foydalanuvchi reytingi asosida muntazam baholanadi.

6. Xususiy sektor bilan hamkorlikni kengaytirish

Xizmat ko'rsatish sifatini oshirish uchun davlat va xususiy sektor (PPP – Public-Private Partnership) o'rtasidagi hamkorlikni mustahkamlash lozim. Internet provayderlari, texnologik kompaniyalar, startaplar xizmatlar uchun infratuzilma, texnik yordam va innovatsiyalarni taqdim eta oladi.

7. Tadbirkorlik faoliyatiga yo'naltirilgan ixtisoslashgan mobil ilovalarni ishlab chiqish

Hududiy xizmat ko'rsatish sektorida faoliyat yuritayotgan xususiy tadbirkorlarning biznesini raqamli qo'llab-quvvatlash uchun davlat tomonidan sohaviy mobil platformalarni ishlab chiqish zarur. Har bir xizmat turi (masalan, savdo, go'zallik saloni, avtoservis, tikuvchilik va boshqalar) uchun alohida, maxsus funksiyalarga ega bo'lgan ilovalar orqali tadbirkorlar o'z faoliyati statistikasi, daromad-chiqimlari, mijoz

oqimi, buyurtma holati kabi ko'rsatkichlarni kiritib boradi. Ushbu ma'lumotlar orqali tadbirkor o'z biznesi samaradorligini real vaqtda kuzatishi, davlat esa — sektorlar bo'yicha aniq, o'z vaqtida statistikani shakllantirishi mumkin bo'ladi.

Taklif: Har bir xizmat turi uchun bepul va davlatga integratsiyalashgan mobil ilova (masalan, "Sotuvchi", "SalonXizmat", "AvtoUsta" kabi) ishlab chiqilib, foydalanuvchilarga taklif etilishi. Bu orqali xizmatlar segmentatsiyasi, monitoring va rejalashtirish ancha osonlashadi.

Xalqaro kontekst: Shunga o'xshash yechimlar Estoniya, Janubiy Koreya va Singapurda ayrim platformalar orqali joriy etilgan bo'lib, ular tadbirkorlik muhitining shaffofligi, texnologik qo'llab-quvvatlanishi va soliq bazasining kengayishiga xizmat qilmoqda.

Bu yo'nalishlarning har biri nafaqat xizmat ko'rsatish samaradorligini oshiradi, balki aholining davlatga bo'lgan ishonchini mustahkamlash, korrupsiyaviy xavflarni kamaytirish va ijtimoiy adolatni ta'minlashda ham muhim omil bo'lib xizmat qiladi.

Xulosa va tavsiyalar

Hududiy xizmat ko'rsatish tizimlarida raqamli texnologiyalarni joriy etish va ulardan samarali foydalanish zamonaviy boshqaruvning ajralmas qismiga aylanmoqda. Tadqiqot davomida aniqlanishicha, raqamli texnologiyalar:

- xizmat ko'rsatish vaqtini qisqartirish,
- xarajatlarni optimallashtirish,
- foydalanuvchi qoniqishini oshirish,
- xizmatlar shaffofligini ta'minlashda katta rol o'ynaydi.

O'zbekiston misolida olib borilgan tahlil shuni ko'rsatadiki, yurtimizda raqamli xizmatlarni rivojlantirish borasida muayyan yutuqlarga erishilgan bo'lsa-da, hududlar o'rtasida infratuzilmaviy tafovutlar, kadrlar salohiyatining pastligi va foydalanuvchilar orasida raqamli savodxonlik yetishmovchiligi mavjud.

Tavsiya etiladigan strategik yo'nalishlar:

Hududiy xizmat ko'rsatish platformalarini yagona tizimga birlashtirish — bu resurslar sarfini kamaytiradi va xizmat ko'rsatishda uzviylikni ta'minlaydi.

Sun'iy intellekt va analitik tizimlardan foydalanishni kengaytirish — foydalanuvchi ehtiyojlarini oldindan aniqlash va tezkor xizmat ko'rsatishga yordam beradi.

Chekka hududlarda internet infratuzilmasini kuchaytirish — xizmatlardan teng foydalanish imkonini yaratish uchun zarur.

Mobil xizmatlar orqali aholini kengroq qamrab olish — aholining katta qismi smartfonlardan foydalangan holda davlat xizmatlaridan foydalanishi mumkin bo'ladi.

Davlat-xususiy sheriklik asosida innovatsion echimlarni joriy etish — texnologik imkoniyatlardan maksimal darajada foydalanish uchun.

Raqamli savodxonlikni oshirish bo'yicha uzluksiz o'quv kurslari tashkil etish — xodimlar va aholining raqamli tizimlarda ishlash ko'nikmalarini shakllantirish uchun.

Yuqoridagi tavsiyalarni hayotga tatbiq etish O'zbekiston hududlarida xizmat ko'rsatish sohasining raqamli transformatsiyasini chuqurlashtiradi, xizmatlarning tezkorligi va sifati oshadi, fuqarolarning davlatga bo'lgan ishonchi mustahkamlanadi.

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**HUDUD IQTISODIYOTINI RIVOJLANTIRISHDA
DIVERSIFIKATSIYA JARAYONLARINI TAKOMILLASHTIRISH:
SURXONDARYO VILOYATI MISOLIDA**

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Termiz iqtisodiyot va servis universiteti

Iqtisodiyot yo'nalishi magistranti

Ilmiy rahbar: DsC i.f.f.d., Otamurodov Shavkat Nusratullayevich

Annotatsiya

Ushbu maqolada hududiy iqtisodiyotni barqaror rivojlantirishda diversifikatsiya jarayonlarini takomillashtirish masalasi Surxondaryo viloyati misolida ilmiy tahlil qilinadi. Diversifikatsiya – iqtisodiy barqarorlik va sektorlararo muvozanatni ta'minlashda muhim vositadir. 2023–2024 yillardagi aniq statistika asosida viloyat iqtisodiyotining tarkibiy holati, sanoat tarmoqlari va kichik biznes rivojlanish tendensiyalari yoritilgan, shuningdek, ilmiy asoslangan takliflar berilgan.

Kalit so'zlar: hududiy iqtisodiyot, diversifikatsiya, sektorlararo muvozanat, Surxondaryo viloyati, iqtisodiy barqarorlik, sanoat tarmoqlari, kichik biznes.

Kirish

So'nggi yillarda O'zbekiston iqtisodiyotini modernizatsiya qilish va hududiy rivojlanishni rag'batlantirish davlat siyosatining ustuvor yo'nalishlaridan biriga aylandi. Ayniqsa, hududlar iqtisodiyotida diversifikatsiya jarayonlarini jadallashtirish orqali tarmoqlararo nomutanosibliklarni bartaraf etish dolzarb ahamiyat kasb etmoqda. Diversifikatsiya — bu faqat iqtisodiy ko'rsatkichlar o'sishini emas, balki iqtisodiy barqarorlikni, zamonaviy infratuzilma va ish o'rinlarining shakllanishini ta'minlovchi muhim omildir.

Surxondaryo viloyati O'zbekistonning janubiy qismida joylashgan bo'lib, boy tabiiy resurslari, qulay geografik o'rni, yosh va mehnatga layoqatli aholi salohiyati bilan ajralib turadi. Biroq viloyat iqtisodiyoti asosan qishloq xo'jaligiga tayanib kelmoqda. Bu esa hududda sektorlararo muvozanatning yetarli darajada shakllanmaganligini, ijtimoiy-iqtisodiy barqarorlikka tahdid soluvchi omillar saqlanib qolayotganini ko'rsatadi.

Ushbu maqolada Surxondaryo viloyati iqtisodiyotida mavjud diversifikatsiya holati tahlil qilinadi, 2023–2024-yil statistikasi asosida sektorlararo rivojlanish holati baholanadi va jarayonlarni takomillashtirish bo'yicha aniq ilmiy asoslangan takliflar ilgari suriladi.

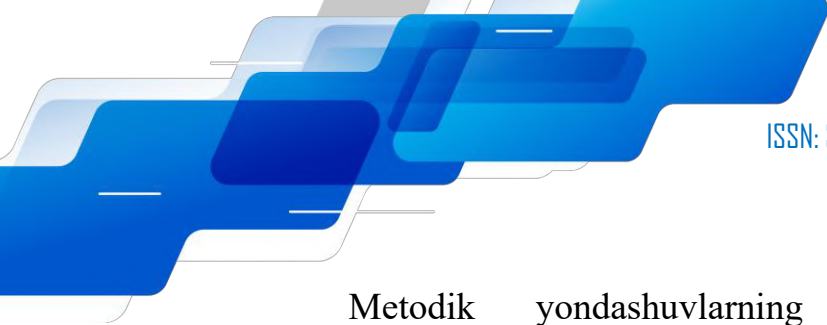
Dolzarblik

Bugungi global iqtisodiy muhitda hududlar iqtisodiyotini diversifikatsiyalash nafaqat barqaror iqtisodiy o'sishni ta'minlash, balki ijtimoiy muammolarni hal qilish, bandlikni oshirish va kambag'allikni kamaytirishning muhim omiliga aylanmoqda. Surxondaryo viloyati O'zbekistonning eng tez o'sayotgan, lekin iqtisodiy jihatdan asosan agrar yo'nalishga tayanib qolgan hududlaridan biri hisoblanadi. Iqlimiy o'zgarishlar, global narxlar beqarorligi va resurslar tanqisligi sharoitida qishloq xo'jaligiga haddan ziyod tayanish iqtisodiy xavf-xatarlarni kuchaytiradi. Shu bois, Surxondaryo viloyatida diversifikatsiyani chuqurlashtirish nafaqat hudud barqarorligini mustahkamlash, balki milliy miqyosdagi iqtisodiy xavfsizlikka xizmat qiladi.

2023–2024-yillarda hukumat tomonidan hududiy rivojlanish va sanoatni rag'batlantirish bo'yicha qator qarorlar (masalan, "2023–2026-yillarda hududiy sanoatni rivojlantirish dasturi") qabul qilindi. Ushbu jarayonlarda Surxondaryo viloyatining imkoniyatlaridan to'liq foydalanish uchun ilmiy tahlillarga asoslangan diversifikatsiya strategiyalari zarur. Shu nuqtai nazardan mazkur mavzu ilmiy va amaliy jihatdan dolzarbdir.

Tadqiqotda quyidagi metodologik yondashuvlardan foydalanildi:

- **Statistik tahlil:** 2023–2024-yillarga oid Surxondaryo viloyati statistika boshqarmasi va O'zbekiston Respublikasi Statistika agentligining rasmiy ma'lumotlari asosida GRP (Yalpi hududiy mahsulot) tarkibi, sanoat ishlab chiqarishi, xizmat ko'rsatish va qishloq xo'jaligi tarmoqlari faoliyati o'rganildi.
- **Herfindal-Hirshman indeksi (HHI):** Hududiy iqtisodiyotda tarmoq konsentratsiyasi darajasi baholandi.
- **Qiyosiy tahlil:** Surxondaryo viloyatining iqtisodiy ko'rsatkichlari boshqa viloyatlar bilan taqqoslandi.
- **SWOT-tahlil:** Hududning iqtisodiy salohiyati va diversifikatsiyalash imkoniyatlari aniqlab berildi.



Metodik yondashuvlarning uyg'unligi natijaviy xulosalarning ishonchliligini ta'minlashga xizmat qildi.

3.1. Yalpi hududiy mahsulot va sektorlar tarkibi

2024-yil yakunlariga ko'ra, Surxondaryo viloyatining yalpi hududiy mahsuloti (YaHM) 54,4 trln so'mni tashkil etdi va 2023-yilga nisbatan 5,9% ga oshdi. YaHM tarkibi quyidagicha taqsimlandi:

Tarmoq	YaHMdagi ulushi (%)
Qishloq xo'jaligi	41,6
Xizmatlar sohasi	40,4
Sanoat	8,1
Qurilish	9,9

Ushbu ko'rsatkichlar viloyat iqtisodiyotida hali ham agrar sektor ustuvor ekanligini va sanoat tarmog'i ulushining nisbatan pastligini ko'rsatadi.

Sanoat va investitsiya faoliyati

2024-yilda Surxondaryo viloyatida sanoat ishlab chiqarish hajmi 14,9 trln so'mni tashkil etib, 2023-yilga nisbatan 8,9% ga o'sdi. O'sish asosan quyidagi yo'nalishlarda qayd etildi:

- Tekstil mahsulotlari ishlab chiqarish
- Qurilish materiallari ishlab chiqarish
- Oziq-ovqat sanoati
- Ko'mir qazib olish

Viloyatda 184 ta yangi sanoat loyihasi amalga oshirilib, jami \$300 mln miqdorida investitsiyalar jalb qilindi va 4 547 ta ish o'rni yaratildi. Biroq yuqori texnologiyali sanoat tarmoqlarida diversifikatsiya sust rivojlanmoqda.

Kichik biznesning o'rni

Viloyat YaHMining 75,2% kichik biznes subyektlariga to'g'ri keladi. Kichik tadbirkorlik asosan savdo va qishloq xo'jaligi sohalarida jamlangan bo'lib, sanoat tarmoqlari, ayniqsa innovatsion faoliyat hali ham sust. Moliyaviy resurslarga yetarli

darajada ega bo'lmashlik, byurokratik to'siqlar mavjudligi sezilarli muammo sifatida namoyon bo'lmoqda.

Investitsiyalar va kichik biznes

2024-yilda viloyatda sanoat yo'nalishida umumiy qiymati 300 mln dollarlik 184 ta loyiha ishga tushirilib, 4 547 ta ish o'rni yaratildi. Kichik biznesning YaHMDagi ulushi 75,2% ni tashkil etdi, bu respublika bo'yicha eng yuqori ko'rsatkichlardan biridir.

Surxondaryo viloyatida iqtisodiy diversifikatsiya jarayonlari ijobiy yo'nalishda rivojlanmoqda. Sanoat tarmoqlarining kengayishi, investitsiyalarning ko'payishi va kichik biznesning faolligi bu jarayonni qo'llab-quvvatlamokda. Biroq, HHI ko'rsatkichi hali ham o'rta darajada bo'lib, sanoat tarmoqlarining yanada diversifikatsiyalashuvi zarur.

Xulosa

Surxondaryo viloyatida iqtisodiy diversifikatsiyani takomillashtirish uchun quyidagi chora-tadbirlar tavsiya etiladi:

1. **Sanoat tarmoqlarini kengaytirish:** Yangi sanoat tarmoqlarini rivojlantirish orqali HHI ko'rsatkichini pasaytirish.
2. **Kichik biznesni qo'llab-quvvatlash:** Kichik va o'rta biznes subyektlariga moliyaviy va maslahat yordamini kuchaytirish.
3. **Investitsiya muhitini yaxshilash:** Xorijiy va mahalliy investitsiyalarni jalb qilish uchun qulay sharoitlar yaratish.
4. **Infratuzilmani rivojlantirish:** Transport va logistika infratuzilmasini modernizatsiya qilish orqali iqtisodiy faollikni oshirish.

Ushbu chora-tadbirlar amalga oshirilsa, Surxondaryo viloyatining iqtisodiy diversifikatsiyasi yanada takomillashadi va hududiy iqtisodiy barqarorlikka erishiladi.

Manbalar:

1. Surxondaryo viloyati statistika boshqarmasi.
2. O'zbekiston Respublikasi Statistika agentligi.
3. Iqtisodiy tadqiqotlar va islohotlar markazi.
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STANDARDS OF STUDENT ASSESSMENT: THEORETICAL FOUNDATIONS AND PRACTICAL CHALLENGES

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Abstract

This article explores the significance of standardized student assessment in modern education. As educational systems move towards competency-based frameworks, the need for clear, transparent, and fair assessment standards becomes essential. Effective assessment not only measures student achievement but also motivates learning and supports personal growth. The study reviews theoretical perspectives on assessment standards, analyzes challenges faced by teachers and students in applying these standards, and discusses practical solutions for improving assessment practices. Data were collected through surveys and interviews involving teachers and secondary school students, highlighting gaps in training and implementation. The findings emphasize that while assessment standards are vital for ensuring educational equity and quality, their successful adoption requires continuous professional development, clear guidelines, and institutional support. The article concludes with recommendations to foster a balanced and student-centered assessment culture.

Keywords: student assessment, assessment standards, competency-based education, educational evaluation, teacher training, fairness in assessment

Introduction

Assessment is one of the fundamental pillars of education, playing a critical role in shaping learning outcomes, informing teaching strategies, and guiding educational policies. In a world where education is rapidly evolving to meet the needs of the 21st century, the standards that govern how student performance is assessed become even more crucial. These standards provide a framework for evaluating not only students' knowledge but also their skills, attitudes, and competencies.

Traditionally, student assessment was primarily focused on measuring knowledge acquisition through tests and examinations that emphasized rote memorization. However, modern pedagogical theories and educational reforms emphasize a shift

toward competency-based education. This approach requires assessment to evaluate complex skills such as critical thinking, creativity, problem-solving, collaboration, and the ability to apply knowledge in various contexts.

Standards of student assessment refer to a set of clearly articulated criteria and expectations that describe what students should know and be able to do at different stages of their education. These standards are vital for ensuring consistency, fairness, and transparency across classrooms, schools, and even entire educational systems. They allow for alignment between curriculum objectives, instructional methods, and evaluation processes, which ultimately contributes to improving educational quality.

Moreover, assessment standards support learners by setting clear goals and performance benchmarks. Students who understand these standards are better equipped to take ownership of their learning and to develop self-assessment skills, which are critical for lifelong learning. This is especially important in secondary education, where students prepare for higher education or vocational pathways.

However, despite the theoretical benefits of standardized assessment frameworks, their implementation in real educational settings encounters various challenges. Teachers often face difficulties in interpreting broad or vague standards and translating them into classroom assessments that are both rigorous and fair. Variations in teacher expertise, resources, and support can lead to inconsistencies in grading practices and feedback quality, which in turn affects student motivation and learning outcomes.

Furthermore, there is an ongoing debate about how best to balance standardized assessments with the need to accommodate individual differences among learners. Questions arise about inclusivity, equity, and the risk of over-standardization potentially stifling creativity and holistic development.

This article aims to explore these issues by reviewing theoretical foundations related to assessment standards, analyzing empirical data on challenges faced by teachers and students, and discussing practical strategies to improve assessment practices in schools. The focus is on establishing a student-centered, fair, and effective assessment culture that supports diverse learning needs.

Methods

The research methodology combined a thorough review of theoretical literature with an empirical study involving secondary school teachers and students. This mixed-methods

approach was chosen to provide both a conceptual understanding and real-world insights into the application of student assessment standards.

The theoretical review included analysis of foundational and contemporary sources on educational assessment. Seminal works by **V.P. Bespalko** provided insights into the pedagogical functions of assessment, highlighting the role of evaluation in guiding learning and teaching processes. N.V. Kuznetsova's research was consulted for methods of formative and summative assessment, as well as challenges in their application. **A.V. Khutorskoy's** work on competency-based education helped frame the discussion of how standards should align with the competencies students are expected to develop.

National guidelines and official documents from the Ministry of Public Education of Uzbekistan were reviewed to contextualize the study within the country's educational system. These documents outlined existing standards for secondary education assessment and related policy directives.

For the empirical study, data collection was conducted in multiple secondary schools across urban and rural areas to capture a broad perspective. The sample included 80 teachers from grades 8–11, representing different subject areas, and 150 students from the same grades. Quantitative data were obtained via structured questionnaires focusing on perceptions of clarity, fairness, consistency, and challenges related to assessment standards. Key questions addressed how well standards were understood, how effectively they were implemented, and what obstacles existed.

Qualitative data were collected through semi-structured interviews with 20 teachers who volunteered to share their deeper reflections on assessment practices. These interviews explored topics such as teacher training, resource availability, the balance between standardization and flexibility, and the impact of assessment on student motivation.

Quantitative data were analyzed statistically to determine trends and correlations, such as the relationship between teacher experience and confidence in applying standards. Thematic analysis was used to identify common themes and concerns from interview transcripts.

This combination of methods ensured a comprehensive view, blending theoretical insight with practical experience from the field.

Results

The results showed a complex picture regarding the understanding and application of student assessment standards among secondary school teachers and students.

From the quantitative surveys, approximately 75% of teachers acknowledged the importance of having clear standards, stating that these guidelines help them structure their lessons and assessments more effectively. They appreciated that standards provide benchmarks for expected student achievement and facilitate communication with students and parents about learning goals.

Students also recognized the value of standards in making grading more transparent. Around 68% of students reported that knowing the criteria helped them understand how their performance was evaluated, which motivated them to improve specific skills or knowledge areas. Many students expressed, that clear standards reduced anxiety related to assessment and made them feel treated more fairly.

However, several challenges were identified. More than 60% of teachers indicated difficulties in interpreting some standards due to their broad or sometimes ambiguous wording. This lack of specificity caused uncertainty in designing assessments that truly reflect the standards, leading to inconsistent grading practices across different classrooms and schools. Many teachers felt underprepared, as only 40% had received formal professional development focused explicitly on assessment literacy.

Another significant issue was balancing standardized assessment with the diverse learning needs of students. Teachers reported challenges in adapting standards to students with varying abilities, language proficiency, and learning styles, especially in mixed-ability classrooms. Some admitted that rigid application of standards sometimes overlooked individual progress or creativity, which are difficult to quantify.

From the students' perspective, while many found standards useful, a notable minority felt that assessment did not always consider personal growth or effort adequately. Some students felt discouraged when grades reflected strict adherence to criteria without acknowledging improvements or partial mastery.

Interviews with teachers revealed a widespread desire for more formative assessment practices, where feedback guides ongoing learning rather than solely summarizing final achievement. However, implementing formative approaches requires time, resources, and training, which were often lacking.

Teachers also emphasized the need for clear, accessible guidelines and support from school administration to foster consistent assessment practices. Collaboration among teachers to share experiences and develop common grading rubrics was mentioned as a promising strategy to improve reliability.

Discussion

The findings from this study are consistent with broader educational research emphasizing the importance of clear, well-communicated assessment standards. Such standards are indispensable for ensuring fairness, transparency, and alignment between teaching and evaluation.

However, the practical challenges identified highlight several areas requiring attention to realize the full potential of assessment standards.

First, professional development is crucial. Many teachers lack the necessary training to confidently interpret and implement standards, which can lead to inconsistencies and reduced assessment quality. Targeted workshops and continuous learning opportunities focused on assessment literacy, rubric design, and formative assessment techniques could empower educators to use standards more effectively.

Second, assessment frameworks must be flexible enough to accommodate student diversity. This involves designing standards that allow for differentiated instruction and multiple modes of demonstrating competence. The rigid application of uniform criteria risks marginalizing students who progress at different rates or express their understanding creatively.

Third, institutional support plays a key role. Schools need to provide clear policies, resources, and time for teachers to collaborate and refine assessment tools. Developing shared assessment rubrics and engaging in peer moderation can enhance consistency and trust in grading practices.

Furthermore, balancing formative and summative assessment is essential to foster a supportive learning environment. While summative assessments measure learning outcomes, formative assessments provide feedback that drives improvement and motivation. Embedding formative practices within the standards can promote a more holistic approach.

Lastly, involving students in understanding and applying assessment standards is beneficial. Encouraging student self-assessment and reflection helps develop metacognitive skills and greater ownership of learning.

Conclusion

Assessment standards are a vital component of modern education, providing structure and clarity to the complex process of evaluating student learning. They promote fairness, transparency, and alignment between educational goals and outcomes.

This study demonstrated that while teachers and students recognize the value of such standards, challenges in interpretation, application, and adaptation remain significant. Addressing these issues requires comprehensive professional development, flexible and inclusive standards, strong institutional support, and a balanced approach integrating formative and summative assessment.

Future research should explore innovative models of assessment that combine standardization with personalization and examine long-term impacts on student achievement and motivation. By fostering an assessment culture that is student-centered and reflective, education systems can better prepare learners for success in an ever-changing world.

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FAOL MINERAL QO'SHIMCHA - MAYDALANGAN DOMNA SHLAKINI KIRITISH ORQALI BETONLARNING XUSUSIYATLARINI OSHIRISH VA YAQSHILASH

Bazarbaev Quralbay Oralbay uli

Berdaq nomidagi Qoraqalpoq davlat universiteti o'qituvchi-stajyor

Zamonaviy qurilish betonga tobora yuqori talablar qo'yimoqda, bu esa klinker asosidagi sementdan juda ko'p miqdorda foydalanish zaruratini keltirib chiqarmoqda. Uning ishlab chiqarilishi dunyodagi ekologik vaziyatga salbiy ta'sir ko'rsatmoqda. Shuning uchun bog'lovchilarning muqobil turlaridan foydalanish zaruriyati tug'iladi. Shulardan biri maydalangan domna donador shlakidir. O'tgan asrning o'rtalarida ham bu turdagi chiqindilarni bog'lovchi sifatida qo'llash bo'yicha ko'p ishlar amalga oshirilgan. O'tgan yilning boshida Rossiya qurilish bozorida "PSK" Mechel materiallar" MCHJ tomonidan ishlab chiqarilgan maydalangan domna granulalangan shlaki paydo bo'ldi. Maqolada faol mineral qo'shimchalar tahlili o'tkazilgan va maydalangan domna shlakini qo'llash orqali betonning mustahkamlikka sinash natijalari keltirilgan.

Tayanch iboralar: shlak-ishqorli beton, bog'lovchi, maydalangan shlak, chiqindilar.

Bugungi kunda jahonda portlandsement texnik-iqtisodiy omillar yig'indisi bo'yicha amalda cheklanmagan xomashyo bazasi, o'zlashtirilgan texnologik jarayon va uskunalarning mavjudligi, xossalari va chidamliligining zaruriy darajasiga muvofiqligi bo'yicha asosiy umumqurilish bog'lovchi moddasi hisoblanadi. Biroq, kuydirish texnologiyasi bo'yicha portlandsement ishlab chiqarish yetarlicha energiya talab qiladi va katta miqdorda CO₂ chiqindilari bilan birga keladi (yonadigan yoqilg'i massasining 6-8%), bu esa dunyodagi ekologik vaziyatga salbiy ta'sir ko'rsatadi. Shuning uchun energiya sig'imli portlandsement o'rnini bosuvchi kuydirilmaydigan bog'lovchilar va ular asosidagi qurilish materiallarini yaratish zamonaviy qurilish materialshunosligi uchun dolzarb masala bo'lib qolmoqda [1,2,3].

Shuningdek, zamonaviy qurilishning eng muhim vazifalaridan biri sun'iy toshning yuqori chidamlilik ko'rsatkichlari va fizik-mexanik xususiyatlarini ta'minlagan holda iqtisodiy samaradorlikni oshirishdir [4,5]

Ko'plab nashrlar, ayniqsa xorijiy nashrlar, klinkersiz materiallar asosida muqobil bog'lovchilarni topishga bag'ishlangan. Bunday materiallar chet el texnik

adabiyotlarida geopolimerlar nomi bilan ko'proq tanilgan ishqoriy faollashtiruvchi moddalar bo'lishi mumkin [6,7].

Portlandsement bilan erkin raqobatlasha oladigan samarali va arzon bog'lovchilar va ular asosidagi kompozitsion materiallarni joriy etish dolzarb vazifa bo'lib, uning yechimi qurilish tannarxini pasaytirish imkonini beradi [8]. Ayniqsa, Rossiyada xom ashyo bazasining mavjudligi nuqtayi nazaridan yetarlicha istiqbolli qurilish materiallarini ishlab chiqarish imkoniyatlari mavjud bo'lib, ular qatoriga shlak-ishqorli bog'lovchilar kiradi. [9].

1. Mineral faol qo'shimchalar

1.1 Mineral qo'shimchalarning xususiyatlarini taqqoslash

Mineral qo'shimchalar to'ldirgichdan donalarining o'lchami 0,16 mm dan kichik bo'lishi bilan, kimyoviy qo'shimchalardan esa suvda erimasligi bilan farq qiladi.

Mineral qo'shimchalar faol va inert qo'shimchalarga bo'linadi:

Faol, suv ishtirokida oddiy haroratda kalsiy dioksidlari bilan bog'lovchi xususiyatlarga ega bo'lgan birikmalar hosil qilish qobiliyatiga ega;

- Inert, odatdagi haroratda sement komponentlari bilan reaksiyaga kirishmaydi, ammo ma'lum sharoitlarda reaksiyaga kirishish qobiliyatini namoyon qilishi mumkin.

Texnogen xomashyodan olingan mineral qo'shimchalar turli xil mineral tarkibga va disperslikka ega, shuning uchun ular beton aralashmasiga turli xil ta'sir ko'rsatadi, bu ularning qo'llanilish sohasini belgilaydi. Texnogen xomashyodan olingan mineral qo'shimchalarning xususiyatlarini ko'rib chiqamiz (1-jadval).

1-jadval. Mineral qo'shimchalarning xususiyatlari

	Mustahkamlik omili	Zarrachalar o'lchami, mkm	Maxsus sirt maydoni	Putssolan faolligi
Portlandsement	1.0	1-100	2800-3500	
Mikrokremnezyom	1.8-2.0	< 1.0	>15000	85-98%
Domna toshqoli	0.9	< 50	4900-5200	>55%
Uchuvchan kremniyli kul	0.8-1.0	1-100	1500-3000	>70%
Asosiy uchuvchi kul	0.5-0.7	1-100	1500-3000	>50%

Mikrokremnezem tarkibida kremniy bo'lgan qotishmalar: ferrosilitsiy, kristall kremniy va boshqalarni ishlab chiqarish chiqindilaridir. Boshqa faol mineral qo'shimchalardan 1-jadvaldan ko'rinib turganidek, zarrachalarning nihoyatda kichik o'lchami va yuqori solishtirma yuzasi bilan ajralib turadi. U sement toshining g'ovaklarida joylashib, zichlikni oshirishga yordam beradi, binobarin, betonning

mustahkamligini, suv o'tkazmasligini va eng muhimi, chidamliligini oshirish kabi bir qator ijobiy xususiyatlarga ega.

Donador domna shlaki - cho'yan eritishda ikkilamchi mahsulotlarni maydalab olinadigan material. Shlakning kimyoviy tarkibi 30-45% CaO, 35-45% SiO₂, 8-16% AlO₃, 6-15% MgO miqdori bilan tavsiflanadi.

Kul-uchuvchi issiqlik elektr stansiyalarida qozon agregatlari o'txonalarida ko'mirni yoqish natijasida hosil bo'ladigan va kul ushlovchi qurilmalar yordamida yig'iladigan mayda dispersli material.

1.2 Mineral qo'shimchalarning afzalliklari va kamchiliklarini taqqoslash

Mineral qo'shimchalarning asosiy afzalliklari va kamchiliklarini jadvalga kiritamiz.

Keltirilgan jadvallardan ko'rinib turibdiki, ko'rsatkichlar yig'indisi bo'yicha, materialning narxini hisobga olgan holda, maydalangan domna shlaki boshqa faol mineral qo'shimchalarga nisbatan yaxshiroq xususiyatlarga ega. Shunga asoslanib, biz maydalangan domna shlakini yanada chuqurroq o'rganishga qaror qildik.

2. Domna maydalangan shlaki

Hozirda shlakoportlandsementga bo'lgan talabning faol pasayishi kuzatilmoqda, bu esa Rossiya metallurgiya zavodlari atrofida shlak chiqindilarining ko'payishiga sabab bo'lmoqda.

Shuni ta'kidlash kerakki, maydalangan domna shlakini betonlarda qo'llash bir qator ijobiy xususiyatlarga ega. Portlandsement betoni tarkibidagi domna maydalangan toshqoli faol to'ldiruvchi vazifasini bajaradi, ya'ni kalsiy gidroksid bilan reaksiyaga kirishadi. Bunda qo'shimcha miqdorda kalsiy gidrosilikatlar hosil bo'ladi, sement toshining cho'kishi natijasida u bilan to'ldiruvchi yuzasi o'rtasida hosil bo'ladigan kapillyar kanallar butunlay yo'qoladi. Bu aksariyat agressiv muhitlarda, shu jumladan kislotaga qarshi ham, faol to'ldiruvchili betonning korroziyaga chidamliligini an'anaviy tarkiblarga nisbatan sezilarli darajada oshirishga olib keladi.

Bundan tashqari, o'ziga xos tuzilish va bog'lovchi va to'ldiruvchi chegarasida mikroazorlarning yo'qligi tufayli bunday betonlar o'ziga xos fizik-mexanik xususiyatlarga ega, shuning uchun shlakli to'ldiruvchili betonlarni qo'llash Xitoy, Buyuk Britaniya, Yaponiya, AQSH va boshqa mamlakatlarda keng tarqalgan.

Donador maydalangan shlakni qo'llashda ko'plab tadqiqotchilar uning betonlarning xususiyatlariga ijobiy ta'sir ko'rsatishini qayd etishgan, xususan:

- yuqori reaksiya qobiliyat, korroziyaga chidamlilik;
- agressiv muhitlar ta'siri sharoitida yuqori chidamlilik;
- qotishdagi kichik kirishish deformatsiyalari;

- zich va yuqori mustahkam sun'iy tuzilma
- yuqori suv o'tkazmaslik;
- sulfatga chidamlilik;
- sovuqqa chidamliligi;
- beton qorishmasining saqlanuvchanligi;
- yoriqlar hosil bo'lishiga yuqori chidamlilik;
- past deformativlik.

Agar mavjud inert materiallar va qo'shimchalar asosida talab qilinadigan beton sinfiga mos tarkib to'g'ri tanlangan bo'lsa, maydalangan shlakdan foydalanilganda betonlarning zarur mustahkamligi, sovuqqa chidamliligi va suv o'tkazmasligi bo'yicha savollar yuzaga kelmasligi kerak.

Sementning maydalangan shlak bilan aralashmasining ijobiy farqlari birinchi - bug'lashda samaradorlik guruhi, ishqoriy oksidlarning minimal mavjudligi, nol suv ajratish, mustahkamlik xususiyatlarining barqarorligi, minimal yoriqlar hosil bo'lishi.

2.1 Portlandsementni maydalangan shlak bilan almashtirish (qisman almashtirish) bo'yicha sinovlar.

Quyidagi sinovlar o'tkazildi:

1) Portlandsementni maydalangan domna toshqoli bilan almashtirish (1-jadval).

3-jadval. Portlandsementni maydalangan domna shlaki bilan almashtirish

Beton sinfi	B22.5	B22.5	B22.5	B22.5	B22.5
Maydalangan shlakni kiritish%	0	30	50	70	50% +kim.
Tarkibi, kg					Qo'shimcha 2,35%
M500 portladsement	420	295	210	125	200
Maydalangan shlak	0	125	210	295	200
Qum	690	635	700	560	87
Chaqiq tosh 5-20mm	1100	1140	1050	1100	950
Suv	170	170	170	170	185
28 sutkalik mustahkamlik, MPa	37	31,4	29,8	17,7	38,5

Xulosa: Portlandsementning 30 va 50% maydalangan shlak bilan almashtirilganda qo'shimchalar qo'llanilmaganda betonning 28 kunlik mustahkamligi me'yorlangan mustahkamlikka mos keladi. Qo'shimchalar qo'shmasdan sementni ko'proq shlak bilan almashtirish ratsional emasligi tajriba yo'li bilan aniqlandi.

2) Sovuqqa chidamlilik sinovlari



Harakatchanligi P3 bo'lgan V25 sinfli betonning sovuqqa chidamliligi 50% portlandsementni PMD (SP-15-2) sovuqqa qarshi qo'shimchasidan foydalangan holda maydalangan shlak bilan almashtirish orqali sinovdan o'tkazildi.

Ushbu sinov uchun quyidagi tarkiblar tanlandi:

Bularga: portlandsement - 235 kg; maydalangan shlak - 235 kg; qum - 765 kg; chaqiq tosh 5-20mm – 1015 kg; PMD qo'shimchasi - 7,05 kg; suv - 176 kg;

Sovuqqa chidamlilik bo'yicha quyidagi qiymatlar olindi (1-jadval). 4).

4-jadval PMD (polimer-modifikatsiyalangan dispersiya) qo'llanilganda sovuqqa chidamliligi quyidagicha ko'rinishga keldi

	№	Namuna o'lchami, mm	Namuna hajmi, sm ³	Og'irligi, g		Ko'rsatkichlar sovuqqa chidamlilik			Betonning sovuqqa chidamlilik bo'yicha markasi
				Dastlabki holatda	Sinovdan keyin	ΔV , sm ³	$\Theta_i \cdot 10$	$\Theta_{ort} \cdot 10$	
B2 5 P3	1	100x100x10 1	1010	2428	2486	0.13	0.13	0.3	300
	2	100x100x10 1	1010	2430	2481	0.36	0.36		
	3	100x100x10 1	1010	2434	2487	0.36	0.36		

Portlandsement - 235 kg; maydalangan shlak - 235 kg; qum - 765 kg; chaqiq tosh 5-20 mm - 1015 kg; PMD (Krioplast ekstra) qo'shimchasi - 7,05 kg; suv - 176 kg;

Sovuqqa chidamlilik bo'yicha quyidagi qiymatlar olindi (1-jadval).

5-jadval Krioplast ekstra qo'llanilganda sovuqqa chidamliligi

	№	Namuna o'lchami, mm	Namuna hajmi, sm ³	Og'irligi, g		Sovuqqa chidamlilik ko'rsatkichlari			Betonning sovuqqa chidamlilik bo'yicha markasi
				Dastlabki holatda	Sinovdan so'ng	ΔV , sm ³	$\Theta_i \cdot 10$	$\Theta_{ort} \cdot 10$	
	1	101x101x101	1010	2411	2429	0.12	0.13	0.1	600

B25 P3	2	100x100x102	1030	2442	2441	- 0.19	-0.19		
	3	100x101x101	1020	2411	2429	0.10	0.36		

Xulosa: GOST 26633-91 talablariga muvofiq sinov natijalariga ko'ra, beton namunalari portlandsementning 50% maydalangan shlak bilan almashtirilganda tayyorlangan bo'lib, sovuqqa chidamliligi bo'yicha 300 dan 600 gacha sikllarga to'g'ri keladi, shunga ko'ra, maydalangan donador shlak betonlarning tuzilishi va qurilish-texnik xususiyatlarini yaxshilashga yordam beradigan mikro to'ldiruvchi bo'lib, sovuqqa chidamliligini yaxshilaydi degan xulosaga kelish mumkin.

3) Saqlanuvchanlik va qulay joylanuvchanlik sinovlari.

Beton qorishmasi qulay joylashuvchanligining saqlanishi - bu qorishma aralashtirish tugagandan so'ng saqlanish jarayonida GOST 7473 da ko'rsatilgan qulay joylashuvchanlik bo'yicha markalar oralig'ida qulay joylashuvchanligini yo'qotadigan vaqtdir. Beton va temirbeton buyumlar ishlab chiqarish jarayonida va ayniqsa monolit qurilishda beton va qorishma aralashmalarining qotishini sekinlashtirish talab etiladi. Struktura hosil bo'lish jarayonlarini sekinlashtirish va beton qorishmalarining dastlabki xususiyatlarini uzoq vaqt saqlash uchun bozorda mashhur bo'lgan turli xil qo'shimchalar bilan aralashmalar o'rganildi. Sinovlar maydalangan shlakning 50% portlandsement o'rnini bosuvchi tarkiblar uchun atrof-muhit harorati 22 °C da o'tkazildi.

Beton qorishmasi xossalaringining saqlanuvchanligini baholash 5 soat davomida xossalarning o'zgarishi to'g'risidagi ma'lumotlarni olish va baholashdan iborat. Birinchi sinov bevosita aralashmani aralashtirish tugagandan so'ng, ikkinchisi va keyingisi har soatda 5 soat davomida beton tashishning taxminiy vaqti davomida amalga oshirildi.

Xulosa: PMF qo'shilgan aralashma eng yuqori saqlanuvchanlikka ega bo'lib, bir soat davomida tarkib V25P4 diapazonida qoldi, 2 soatdan so'ng aralashma V25P2 diapazoniga o'tdi. Qolgan aralashmalar 30 daqiqa davomida P2 diapazoniga o'tdi. Ekoplast P-11 qo'shimchasi bilan aralashma 2 soat davomida harakatchanlikning pasayishini ko'rsatadi, keyin jarayon sekinlashadi va aralashma harakatchanligicha qoladi, P2 diapazoniga 5 soatdan keyin o'tadi. Beton qorishmasining harakatchanligini saqlab qolish uchun eng maqbul qo'shimcha PFM - NLK qo'shimchasidir.

4) Turli kimyoviy qo'shimchalar kiritishdagi sinovlar.

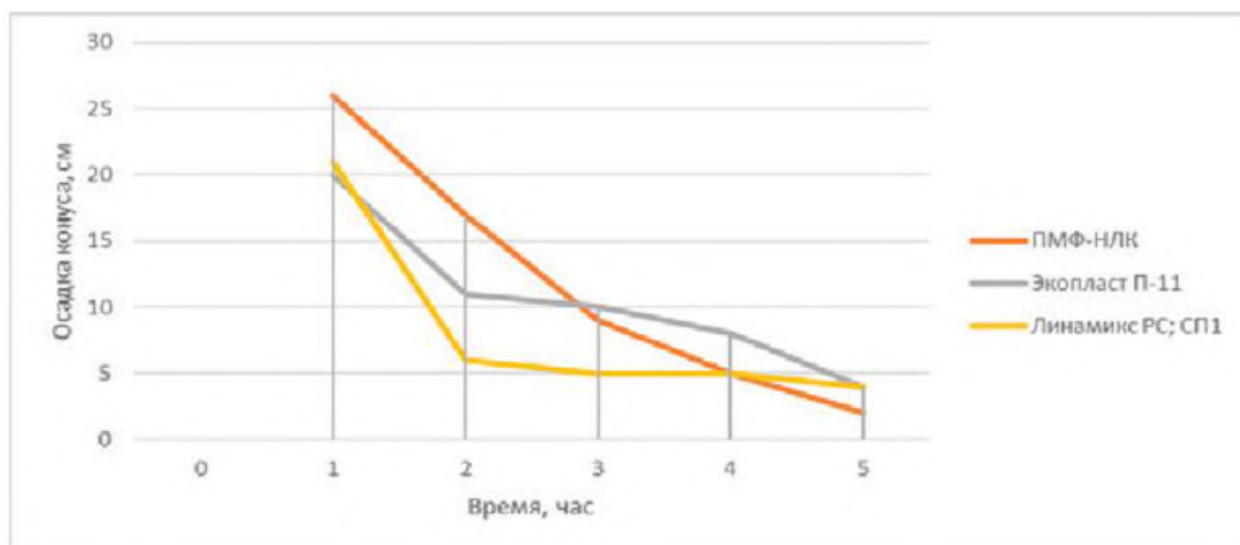
Kimyoviy qo‘shimchalarni qo‘llash maydalangan shlakni kiritishning salbiy xususiyatlarini erta va markali mustahkamlikka erishish uchun bartaraf etish imkonini beradi. Sinovlar turli xil kimyoviy qo‘shimchalar uchun o‘tkazildi, bu yerda monolit qurilishda betonlar uchun o‘xshash natijalarga erishildi:

– Beton qorishmasining qulay joylashuvchanligi va uning vaqt o‘tishi bilan saqlanishi ko‘p jihatdan kimyoviy qo‘shimcha, sement va shlakning mos kelishi bilan belgilanadi.

Eng yaxshi natijalar MS Bauchemie (2,35%) va Sika (1%) qo‘shimchalaridan foydalanilganda $S/S=0,38$ da olindi.

6-jadval Beton qorishmasining saqlanuvchanligi

№	Beton tarkibi, kg	Qo‘shimcha, kg	Betonning ushlab turish vaqti	Konusning cho‘kishi, sm
1	B25 P4	PFM-NLK 6.7.	1 soat	26
	Sement - 195		2 soat	17
	Shlak - 195		3 soat	9
	Qum - 720		4 soat	5
	Chaqiq tosh - 1055		5 soat	2
	Suv - 140			
2	B25 P4	Ekoplast P-11 4.2.	1 soat	20
	Sement - 210		2 soat	11
	Shlak - 210		3 soat	10
	Qum - 760		4 soat	8
	Shag‘al - 1100		5 soat	4
	Suv - 180			
3	B25 P4	RS dinamikasi - 1.26 SP1-7.2	1 soat	21
	Sement - 210		2 soat	6
	Shlak - 210		3 soat	5
	Qum - 760		4 soat	5
	Chaqiq tosh - 1110		5 soat	4
	Suv - 135			



Beton qorishmasining saqlanuvchanligi

– Ba’zi qo’shimchalar uchun shlak miqdori oshganda, maydalangan shlakning yuqori dispersligi tufayli ularning sarfini oshirish zarurligi qayd etilgan, bu qo’shimchani uning zarralari tomonidan yutilishiga va uning betondagi ta’sir samaradorligini yo’qotishiga olib keladi.

Shlakli betonlar tarkibiga kimyoviy qo’shimchalarni kiritish orqali bir yoki bir nechta samaradorlik ko’rsatkichlariga erishiladi:

– sement sarfini 10% gacha qo’shimcha kamaytirish va betonning loyihaviy yoshidagi mustahkamligini 25% gacha oshirish;

7-jadval.Sement o’rnini bosishda turli xil kimyoviy qo’shimchalardan foydalanish

Beton namunasi B25	Shlak kiritish	Qo’shimcha	Mustahkamlik MPa, 3 sutka	Mustahkamlik MPa, 7 sutka	Mustahkamlik MPa, 28 sutka
1	30%	PFM ISO 1,2%	19,8	25,9	38,4
2	50%	MasterGlenium115 2,8%	21,6	37,3	44,1
3	50%	MasterGlenium116W 1%	25,9	30,8	35,5
4	50%	SP-1	22,1	27,6	32,1

– beton qorishmasining texnologik xususiyatlarini yaxshilash (qulay joylashuvchanlik, bir xillik, qatlamlanmaslik);

- beton qorishmasi harakatchanligining vaqt bo'yicha yo'qotilishi, qotish, qotish, issiqlik ajralish jarayonlari tezligining rostdanuvchanligi;
- buyumlarga issiqlik-namlik bilan ishlov berish davomiyligini qisqartirish, monolit konstruksiyalarni qolipdan chiqarish va yuklash muddatlarini tezlashtirish;
- zichlangan betonga qishda isitishsiz qotish qobiliyatini berish;
- betonning sovuqqa chidamliligini 2-3 marta va undan ortiq oshirish, betonning zichligi va suv o'tkazmasligini bir-ikki markaga oshirish, beton va temirbetonning agressiv muhitlarda chidamliligini oshirish.

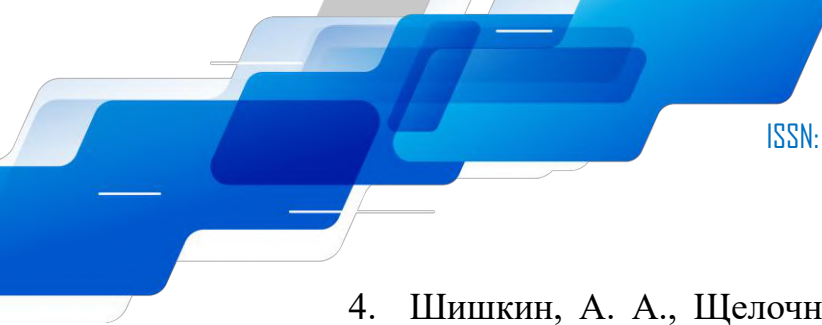
Xulosa

O'tkazilgan sinovlar va adabiyot manbalarini tahlil qilish natijasida quyidagi xulosalarni chiqarish mumkin:

- Maydalangan shlak va turli xil maxsus kimyoviy qo'shimchalarni kiritish natijasida yuqori mustahkam betonlar (V60, V80) olish imkoniyati mavjud;
- Beton qorishmasi tarkibiga maydalangan shlakni kiritish, betonlarning qotish usullariga qarab, buyumlarning sirt tuzilishini yaxshilaydi, bu esa keyingi pardozlash operatsiyalarida shpaklyovka va kolerdan foydalanish hajmini kamaytiradi;
- Maydalangan domna shlakini kiritish betonning bir qator xususiyatlarini yaxshilaydi, jumladan: sovuqqa chidamlilik, saqlanuvchanlik, korroziyaga chidamlilikni oshirish, chidamlilik.
- Shuningdek, maydalangan shlakni o'z-o'zidan zichlanadigan betonlar ishlab chiqarishda, ayniqsa, tunnel qurilishida import qilinadigan mikrotsement o'rnini bosuvchi sifatida ishlatish mumkin.
- Boshqa faol mineral qo'shimchalar bilan taqqoslaganda, domna maydalangan shlakining narxi past bo'lib, bu keyinchalik umuman qurilish tannarxiga katta ta'sir ko'rsatadi;
- Domna maydalangan toshqolini ishlab chiqarish atrof-muhit uchun 10 baravar foydaliroq, shuningdek, metallurgiya chiqindilarini ko'mish hajmini kamaytiradi;

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GASTRONOMIYANÍŇ ULÍWMA TIL BILIMINDE IZERTLENIWI

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Annotaciya: Gastronomiya azıq-awqat hám mádeniyat ortasındaǵı baylanıslardı úyrenetuǵın pán bolıp, onda awqatlardıń túrleri, atları haqqında úyreniledi hám bir milletke tán tariyxın úyreniwge qızıǵadı.

Biz bul maqalamızda qaraqalpaq tilinde jańa baǵdar bolǵan gastronomiyanıń qaraqalpaq til bilimine kirip keliwin hám onıń qalıplesiwi haqqında sóz etpekshimiz.

Tayanış sózler: Gastronomiya, awqatlanıw mádeniyatı, aspazshılıq kórkem-óneri, aspazshılıq turizmi, kúndelikli awqatlanıw, mádeniyat, etnografiya, tariyxıy xarakter, azıq-awqat.

Házirgi kúnde jámiyetimizde turizm jedellik penen rawajlanıp kiyatır, sonıń menen birge jańadan gastronomiyalıq turizm túri de payda boldı. Bul turizmnıń tiykarǵı túri bolıp, onda sayaxatshılar ózleri sayaxat etetuǵın eldiń asxanası menen tanısıp, sol milletke tán awqat túrlerin, tayarlanıw usılların hám mádeniyatın úyrenedi. Sonıń menen qatar, gastronomiya til biliminde de óz kórinisin taptı. Sebebi, xalıq payda bolǵannan baslap olardıń kún kórisi, azıq-awqat túrleri hám bir-birinen ayırıp turatuǵın gastronomiyalıq belgilerin úyreniwdi talap etti.

Gastronomiya boyınsha rus til biliminde eń birinshi márte "Annalov" mektebi wákili F. Brodel tárepinen sóz etilgen bolsa, sońınan P.Giro[1], I.E.Zabelina[2], N.I.Kostomarova[3] hám A.V.Tereshenkolar[4] tárepinen bul tarawǵa kirispe esabında hár millettiń ózine tán belgilerin ashıp kórsetiwge háreket etedi. Jáne de etnografiyalıq tärepten S.A.Arutyunova, D.A.Baranova, D.K.Zelenina hám V.A.Lipinskoylardıń "awqatlanıw mádeniyatı" túsiniǵı átirapında izertlew alıp baradı. Sońǵı dáwirde M.V.Kapkan [5] gastronomiya tarawı boyınsha óziniń izertlew jumısın alıp baradı.

Zamanagóy mádeniyatda kúndelikli awqatlanıw tarawına qızıǵıwshılıq artıp barıp atır. Azıq-awqat teması ǵalabalıq mádeniyattıń derlik barlıq tarawlarına kiredi. Aspazlıq temalarında kóplegen kitaplar hám dáwirli baspalar basıldı. Aspazshılıq kórkem óneri kórgizbeleri hám tańlawları ótkeriledi. Ulıwma awqatlanıw sisteması aktiv rawajlanıp atır. Televizorda awqat pısırwıdıń názik táreplerine arnalǵan programmalar bar. Zamanagóy turizmnıń ataqlı túrlerinen biri aspazshılıq turizmi

bolıp, onıń maqseti túrli xalıqlardıń asxanası menen tanısw bolıp tabıladı. Bunday halda, azıq-awqat tayarlaw da, onı tutınıw da qızıǵıwshılıq oyatadı. Bulardıń barlıǵı azıq-túlik ónimlerin tayarlaw hám tutınıw processleri biologiyalıq mútajlıktı qandırıwdıń ápiwayı usılları bolıp qalıwı hám zamanagóy insannıń kúndelikli ómiriniń zárúrli bólimlerinen birine aylanıwınan dárek beredi, jáne bul sorawlar búgingi kúnde mádeniy bilimler kózqarasınan aktual bolıp kórinedi hám tereń teoriyalıq úyreniwge ılayıq bolıp tabıladı.

Kúndelikli insannıń ómiriniń derlik barlıq tarawların qamtıp alǵan kúndelikli turmıs mádeniyatın izertlew zamanagóy gumanitar bilimlerdiń eń aktiv rawajlanıp atırǵan baǵdarlarınan biri bolıp tabıladı. Kúndelikli awqatlanıwdı xarakteristikaw ushın jaqında gastronomikalıq mádeniyat túsiniǵı jiyi paydalanılıp kiyatır, bul tarawdıń hár tárepleme xarakteristikasın názerde tutadı. Biraq, gastronomikalıq mádeniyat ele de jaqın ilimiy qızıǵıwshılıq temasına aylanbaǵan. Etnografikalıq izertlewler dástúriy túrde bayram kontekstinde saltanatlı hám dástúriy pısırıwdı, azıq-túlik simvollıǵın hám awqattı úyrenedi. Biraq kúndelikli awqatlanıw gumanitar pánlerdiń shetinde qalıp atır. Arnawlı bir xalıq yamasa klasstıń awqatlanıw ádetleri haqqındaǵı bólek-bólek maǵlıwmatlar etnografiyalıq hám tariyxıy xarakterge iye (I. Zabelin, A. Tereshchenko, N. Kostomarov) dóretpelerinde ushıraydı. Kúndelikli awqatlanıw hám mádeniy sistema arasındǵı baylanıslılıq birinshi ret Annales mektep wákilleriniń, atap aytqanda F.Braudeldiń dóretpelerinde súwretlengen bolıp, olar gastronomikalıq mádeniyattı dáwir kontekstinde kórip shıǵıwǵa háreket etken, ekonomikalıq, siyasiy jáne social faktorlarda da izertleydi. Sońǵı on jıllıqlarda shet el páninde bul hádiysege tolıq arnalǵan bir qatar dóretpeler payda boldı. Gumanitar pánler salasında tap sonday urınıwlar V.Pohlebkin dóretpelerinde de bolǵan. Usınıń menen birge, mámleketimizde de, shet elde de tiykarǵı itibar azıq-túlik ónimlerin tayarlawdıń texnologiyalıq qásiyetleriniń evolyutsiyasına jáne bul evolyuciyanı belgilep bergен faktorlardı analiz etiwge qaratılǵan.

Rus til biliminde gastronomiyalıq atamalar boyınsha arnawlı tikkeley islengen izertlew jumısı joq, biraq sol túsinikler átirapında óziniń jumısların dóretken bir qatar ilimpazlar bar: A.V.Pavlovskaya[6], M.V.Kapkan[7], I.V.Soxan[8] h.t.b. Usı maqalalardı tiykarlanıp biz sonı ayta alamız, rus til bilimi ilimlazları baslap berip ketken bul jol biz ushın keyingi waqıtta ilimde qalıp esaplanadı. Sebebi, bul jańa baǵdar ushın kórsetpe tayar, jol bar. Gastronomiya ilimi rus til biliminde hár tárepleme izertlenilgen hám ele de izertlenip kiyatır.

Túrkiy til biliminde de bul taraw lingvistikalıq tárepten bolsın, basqa turizm tárepten bolsın kishigirim jumıslar alıp barılǵan.

Áyyem zamanlardan baslap insanlar ózleri jasap kiyatırǵan úlkede neni jetilistiriw ańsat bolsa yáki ań ańlaw ańsat bolsa sol ónimlerden paydalangan. Teńiz jaǵasında jasawshı xalıqlar teńiz ónimleri menen maqtansa, tawlı jerlerde jasawshı xalıqlar ózleri jetistirgen gósh hám sút ónimleri menen maqtanǵan, toǵay átirapında jasawshıları bolsa ań awlap qolǵa kirgizgen jemisleri menen kún kórgen h.t.b. Awqatlanıwdıń bunday tártibi hárbir millettiń ózine tán azıq-awqat racionınıń qalıplesiwine alıp kelgen hám aqıbetinde bunday nárseler belgili bir millettiń asxanasınıń tiykarǵı azıq-awqat ónimlerine aylanǵan. Sol sebepli qanday da bir milletti kóz aldımızǵa keltirgende, onıń asxanasında ústinlik qılatuǵın azıq-awqat ónimleri kóz aldımızǵa keledi. Máselen, inglis xalqında-pudding, roast beef, beef steaks, italyanlarda- pasta, pitsa hám makaronlar, fransuzlarda- teńiz ónimleri, rus xalqında- борщ, щи, ózbeklerde- palaw, somsa, sorpa h.t.b.[9]

Joqarıda keltirilgen pikirlerge súyengen halda sonı aytıwımızǵa boladı, gastronomiya tarawına baylanıslı –“pázendelik” terminin analog sıpatında qollana alamız. Hár bir xalıqtıń asxanasında sol milletti dúnya júzine tanıtqan taǵamı boladı. Máselen ózbeklerde “osh” bolsa, qaraqalpaq xalqında “júweri gúrtik” qaraqalpaq asxanasınıń tiykarǵı taǵamlarınıń biri esaplanadı. Bul awqattıń tayarlanıwına qarap qaraqalpaq xalqınıń burınǵı jasap ótken dáwiri qanday bolǵanlıǵın biliwge boladı. Sol zamanlarda posıw esabınan asharsılıq uzaq waqıt dawam etkende xalıq arasında aq un tabıla bermegen hám qara un, yaǵnıy, júweri unınan paydalanıp, awqat etip shıbın janın saqlap qalıwǵa háreket etken.

Xalıqlardıń gastronomiyalıq diskursınıń qalıplesiwine din de óz ornında jeterlishe tásir kórsetken, sebebi, din ol yamasa bul azıq-awqat ónimlerine sheklew qoyǵan yáki kerisinshe bazı jemislerdi paydalanıwǵa shaqırılǵan. Bul bolsa, óz náwbetinde, millettiń gastronomiyalıq leksikasınıń qalıplesiwine úlken tásir tiygizgen. Mısalı, musulmanlardıń shoshqa góshin jemewi yáki buddistlardıń mal góshin jemewi, rus xalqınıń Масленица bayramında bolsa quymaqtı (блины) jewge shaqırıw kibi ádetlerdi qalıplestirgen.[10]

Túrkiy til biliminde gastronomiya boyınsha arnawlı izertlew jumısı alıp barılmaıdı. Biraq bul ilim boyınsha kishi izertlewler bar. Máselen, S.Keldiyorova[11], M.Sanakulova[12], D.Muxammadiyevalardıń[13] tezis hám maqalaları járiyalanǵan.

Qaraqalpaq tilinde gastronomiya tarawı jańadan izertleniledi. Bul jumısıwız taza baǵdardıń kirip keliw tiykarı esaplanadı. Bunnan aldın gastronomiya boyınsha birde-bir izertlew jumısı alıp barılmaǵan. Joqarıdaǵı ilimpazlardıń miynetlerine súyengen halda qaraqalpaq tilinde de gastronomiya baǵdarın tereń izertleymiz. Rus til biliminde aldın izertlengenlikten bizde tayar qalıp bar. Sol tiykarda óz jumısıwızdı alıp baramız.

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PLATSENTANING PAST JOYLASHUVI BO'LGAN HOMILADORDA TUG'RUQNI BOSHQARISH (ADABIYOTLAR SHARHI)

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Dolzarbligi. “Past joylashgan platsenta” — bu platsentaning bachadon pastki segmentiga qisman joylashgan holati bo‘lib, u ichki bachadon bog‘zidan 1–20 mm masofada joylashadi. Bunday holatdagi ayollarda optimal tug‘ruq usuli hanuzgacha muhokama qilinmoqda, shuning uchun ularning aksariyatida kesarcha kesish bajariladi. Vaginal va kesarcha tug‘ruq hollari chastotasini baholash uchun adabiyotlar tahlili amalga oshirildi.

Kalit so‘zlar: homiladorlik, past joylashgan yo‘ldosh, diagnostika, ultratovush tekshiruvi.

ВЕДЕНИЕ РОДОВ У БЕРЕМЕННЫХ С НИЗКО РАСПОЛОЖЕННОЙ ПЛАЦЕНТОЙ (ОБЗОР ЛИТЕРАТУРЫ)

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Актуальность. «Низко расположенная плацента» — это когда происходит частичная имплантация в нижний сегмент матки и расположен на расстоянии 1–20 мм от внутреннего цервикального отверстия. Оптимальный способ родоразрешения у женщин с низко расположенной плацентой до сих пор остается спорным и большинству из них проводится кесарево сечение. Проведен анализ литературы для оценки частоты вагинальных родов и кесарева сечения при родах. **Ключевые слова:** беременность, низкая плацентация, диагностика, ультразвуковое исследование

MANAGEMENT OF LABOR IN PREGNANT WOMEN WITH LOW-LYING PLACENTA (LITERATURE REVIEW)

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Relevance: "Low-lying placenta" refers to partial implantation in the lower segment of the uterus, located at a distance of 1–20 mm from the internal cervical os. The optimal method of delivery in women with low-lying placenta remains controversial, and most of them undergo cesarean section. A literature analysis was conducted to assess the frequency of vaginal delivery and cesarean section during labor.

Keywords: pregnancy, low placenta, diagnosis, ultrasound examination.

“Past joylashgan platsenta” atamasi platsentaning bachadon pastki segmentiga qisman joylashgan holatini ifodalaydi, bu holatda platsentaning pastki cheti ichki bachadon bog‘zidan (internal -os- distance - IOD) 1–20 mm masofada joylashadi [1–3]. Transvaginal skanerlash (TVS) — IOD ni o‘lchashda “oltin standart” hisoblanadi [4]. Ushbu masofani o‘lchash uchun optimal vaqt homiladorlikning uchinchi trimestri oxiri — 36-hafta deb hisoblanadi, chunki shu vaqtda bachadon pastki segmenti to‘liq shakllanadi [6, 7]. IOD ni aniqlash tug‘ruq usulini tanlashda muhim ahamiyatga ega [2, 5, 8].

Platsentaning oldindan joylashuvi holatlarida kesarcha kesish bajarilishi kerakligi borasida ko‘rsatmalar mavjud bo‘lsa-da, platsentaning past joylashuvi bo‘lgan homiladorlarda optimal tug‘ruq usuli hali ham bahsli hisoblanadi, chunki bu borada ishonchli ilmiy ma’lumotlar yetarli emas [9–14].

Izlanishlarga homiladorlikning ikkinchi trimestrida platsentaning past joylashuvi bo‘lgan ayollar kiritilgan. Nazorat guruhi sifatida platsentasi normal joylashgan homiladorlar olingan. Har bir holatda, uchinchi trimestr oxirida IOD >5 mm bo‘lgan 30 nafar ayol tanlab olindi. Platsentaning past joylashuvi holatlari chastotasi ikkinchi trimestrda 2% bo‘lsa, homiladorlik oxiriga kelib 0,4% gacha kamaydi. Agar IOD >5 mm bo‘lgan ayollarda vaginal tug‘ruq chastotasi $\geq 60\%$ bo‘lsa, ularni tug‘ruqqa tayyorlash uchun rejalashtirilgan kasalxonaga yotqizish maqbul hisoblanadi.

Amerika va Buyuk Britaniyaning akusherlik va ginekologiya kollejlari homiladorlikning uchinchi trimestrida simptomlari yo‘q past joylashgan yo‘ldoshli ayollar uchun klinik vaziyat va bemor istagiga asoslangan individual yondashuvni

tavsiya etadi. Niderlandiyaning 2015-yilgi va Kanadaning 2020-yilgi ko'rsatmalarida esa IOD 11–20 mm bo'lgan barcha ayollarga vaginal tug'ruq tavsiya etiladi, chunki bu oraliqda qon ketish xavfi past hisoblanadi [16].

Shuningdek, kanadalik tadqiqotchilar $IOD \leq 10$ mm bo'lgan ayollarda ham, agar boshqa xavf omillari bo'lmasa (masalan, 29 haftagacha qon ketish holatlari yoki marginal sinus belgilarining mavjud emasligi), vaginal tug'ruqni sinab ko'rishni tavsiya etadilar [17].

Retrospektiv tadqiqotda IOD 11–20 mm bo'lgan ayollarda vaginal tug'ruq 69% hollarda, IOD 1–10 mm bo'lganlarda esa 25% hollarda kuzatilgan [10]. Shu asosda 2009-yilda maxsus protokol ishlab chiqilgan: IOD ≤ 10 mm bo'lsa — rejalashtirilgan kesarcha kesish, IOD 11–20 mm bo'lsa — vaginal tug'ruq tavsiya qilinadi.

2009–2018-yillar mobaynida protokol qo'llanilganda, IOD 11–20 mm bo'lgan ayollarda vaginal tug'ruq 77%, shoshilinch kesarcha hollari esa 16,3% ni tashkil etdi [18]. Bu Jansen va boshqalar tomonidan olib borilgan sistematik tahlil natijalari bilan mos keladi [19]. IOD 1–10 mm bo'lgan ayollarda vaginal tug'ruq 43%, shoshilinch kesarcha esa 45% ni tashkil etgan. Ikkala guruhda ham onalik kasalliklari bo'yicha farq aniqlanmagan. Shunga o'xshash natijalar Wortman va boshqalar tomonidan o'tkazilgan retrospektiv tadqiqotda olingan. [13] Ular IOD > 5 mm bo'lgan ayollarda vaginal tug'ruq ehtimoli < 5 mm (mos ravishta 58% va 0%) bilan solishtirgandasezilarli darajada yuqori ekanini aniqladilar, IOD kichik guruhlari o'rtasida sezilarli farqlar yo'q (6–10mm, 11–15mm, 15–20mm)

Ishonchli ilmiy dalillar va o'z navbatida, o'ziga xos milliy tavsiyalar yo'qligi sababli Italiyada platsenta past joylashgan ko'pchilik ayollarga odatda kesarcha kesish taklif qilinadi [10, 18]. Biroq, uchunchi trimestrda IOD > 20 mm ga yetgan ayollarda ham qon ketish xavfi yuqori bo'lishi aniqlangan.

Kesarcha kesish keyingi homiladorliklarda platsenta oldindan joylashuvi ehtimolini oshiradi, ayniqsa ilgari bunday holat kuzatilgan bo'lsa [21]. Bu xavf avvalgi kesarcha soni ortgani sayin oshadi [5]. Avvalgi kesarcha va yo'ldoshning oldindan joylashuvi — platsenta o'sib kirishi (placenta accreta) rivojlanishining asosiy omillari hisoblanadi [22]. Ushbu holat og'ir qon ketish, gistorektomiya, qon quyish va onalik-perinatal o'lim xavfi bilan kechadi [23].

JSST 2015-yildan boshlab ayniqsa birinchi homiladorlikda kesar kesish usulidagi tug'ruqlarni kamaytirishni tavsiya qilgan [24]. Bu tavsiyalar ayniqsa Yevropa davlatlari uchun dolzarb, chunki bu mamlakatlarda eng yuqori ko'rsatkichlarga ega [25].

Italiya tadqiqotlari (2021-2024) uchunchi trimestr oxirida trasvaginal ultratovush tekshiruvi asosida platsenta past va IOD >5mm bo'lgan barcha ayollarga vaginal tug'ishni sinovdan o'tkazishni taklif qiladi. Tadqiqotchilar homiladorlikning ikkinchi trimestrida normal va past joylashgan yo'ldoshli ayollarni solishtirgan. Maqsad: IOD 6–20 mm bo'lgan ayollarda vaginal tug'ruq va shoshilinch kesarcha holatlarini baholash.

Oxirgi yillarda olingan ma'lumotlar past joylashgan yo'ldoshli ayollarda vaginal tug'ruq xavfsizligini tasdiqlamoqda [12]. Shu bilan birga, kesar kesish usulidagi tug'ruqlar ortib borayotgani fonida placenta accreta xavfi ham ortmoqda [22].

Shuning uchun homiladorlikning 19–23 haftalari oralig'ida UTT orqali past joylashgan yo'ldosh aniqlanib, placenta accreta holati istisno qilinishi kerak. 37-haftada qayta baholab, tug'ruq usulini aniqlash tavsiya etiladi.

Adabiyotlar tahlili shuni ko'rsatmoqdaki, past joylashgan yo'ldoshni erta aniqlash va TVS orqali IOD ni aniqlash, placenta accreta ni istisno qilish orqali har bir homilador ayolga individual yondashuv asosida tug'ruq rejasini tuzish mumkin bo'ladi.

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TÜRKİY TİL BİLİMİNDE GENDER MÂSELESİNİN ÜYRENİLİWİ

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Annotaciya: *Lingvistikada gender mâselesi jaña baǵdar bolıwına qaramastan birqansha tez rawajlanıp, arnawlı izertlew obyektiñe aylanıp úlgerdi. Til biliminde genderlik izertlewler óz aldına orın iyelep, erkin bolǵan lingvistikalıq baǵdar gender lingvistikası yamasa lingvistikalıq genderologiya payda boldı. Túrkiy til biliminde gender túsiniǵı ádewir úyrenilip, lingvistikalıq baǵdarda keńirek izertlenip úlgergen. Biz bul maqalada túrkiy tillerindegi gender mâselesiniń úyreniliwi, sonıń menen birge qaraqalpaq til bilimindegi genderlik izertlewlerdiń dáslepki kórinisleri sóz etildi.*

Tayanışh sózler: *gender, gender lingvistikası, kórkem tekst, er hám hayallarǵa tán sózler, frazeologiyalıq birlikler, paremiyalıq genderler, salıstırmalı izertlew, gender stereotipler.*

TURKIY TILSHUNOSLIKDA GENDER MASALASINING O'RGANILISHI

Annotatsiya: *Tilshunoslikda gender masalasi yangi yo'nalish bo'lishiga qaramasdan ancha tez rivojlanib, maxsus tadqiqot obyektiga aylanib ulgurdi. Tilshunoslikda gender tadqiqotlari alohida o'rin egallab, mustaqil bo'lgan lingvistik yo'nalish gender lingvistikasi yoki lingvistik genderologiya paydo bo'ldi. Turkiy tilshunoslikda gender tushunchasi ancha o'rganilib, lingvistik yo'nalishda kengroq tadqiq etilib ulgurgan. Ushbu maqolada turkiy tillardagi gender masalasining o'rganilishi, shuningdek qoraqalpoq tilshunosligidagi gender tadqiqotining dastlabki ko'rinishlari haqida so'z yuritildi.*

Tayanch so'zlar: *gender, gender lingvistikasi, erkak va ayollarga xos so'zlar, qiyosiy tadqiqot, gender stereotiplar.*

ИЗУЧЕНИЕ ПРОБЛЕМЫ ГЕНДРА В ТЮРКСКОМ ЯЗЫКОЗНАНИИ

Аннотация: *Несмотря на то, что гендерный вопрос является новым направлением в лингвистике, он развивался довольно быстро и стал объектом специального исследования. Гендерные исследования заняли особое место в лингвистике, и возникло самостоятельное лингвистическое направление -*

гендерная лингвистика или лингвистическая гендерология. В тюркской лингвистике понятие гендера достаточно изучено и более широко исследовано в лингвистическом направлении. В данной статье говорилось об изучении гендерного вопроса в тюркских языках, а также о первых проявлениях гендерного исследования в каракалпакском языкознании.

Ключевые слова: гендер, гендерная лингвистика, мужские и женские слова, сравнительное исследование, гендерные стереотипы.

STUDYING THE GENDER PROBLEM IN TURKIC LINGUISTICS.

Abstract: Although the gender question is a new field in linguistics, it has developed quite rapidly and has become the object of special research. Gender studies took a special place in linguistics, and an independent linguistic field emerged - gender linguistics or linguistic genderology. In Turkic linguistics, the concept of gender has been sufficiently studied and more extensively researched in the linguistic direction. This article discussed the study of gender issues in Turkic languages, as well as the first manifestations of gender research in Karakalpak linguistics.

Keywords: gender, gender linguistics, male and female words, comparative research, gender stereotypes.

Kirisiw. Búgingi kúnde ilim hám texnikanıń rawajlanıwı menen til bilimi tarawı da úlken jetiskenliklerge erisip, jańa qospaq baǵdarlar, jańa terminler kirip kelmekte. Usınday baǵdarlardıń biri gender lingvistikası boldı. Gender máselesi tiykarınan, filosofiya, psixologiya, sociologiya, siyasattanıw hám ásirese lingvistikada aktual máselelerdiń qatarınan orın alǵan. Lingvistikada gender máselesi jańa baǵdar bolıwına qaramastan birqansha tez rawajlanıp, arnawlı izertlew obyektiye aylanıp úlgerdi. Til biliminde genderlik izertlewler óz aldına orın iyelep, erkin bolǵan lingvistikalıq baǵdar gender lingvistikası yamasa lingvistikalıq genderologiya payda boldı. Gender lingvistikası qanday baǵdar? Ol neni úyrenedi? – degen sorawlarǵa juwap beriwden aldın gender atamasına ayırıqsha toqtap ótiw orınlı.

Ádebiyatlar analizi . Eń dáslep (tek) “gender” atamasın 1968-jılı Robert Stoller ilimge kirgizdi. Alım bul sózdi óziniń “Jınıs hám gender” miynetiniń atı ushın paydalandı[1]. Al, jınıs hám gender atamalırdıń arasındǵı terminologiyalıq ayırmashılıqtı anıqlap bergen G.Rubin hám R.Ungerdiń miynetleri boldı.

Izertlew metodologiyası. Bul maqalada temanı ashıp beriw procesinde sinxron analiz, distributiv hám salıstırıw metodlarınan paydalanılǵan.

Analiz hám nátiyjeler. Túrkiy til biliminde gender túsiniǵı ádewir úyrenilip, lingvistikalıq baǵdarda keńirek izertlenip úlgergen. Ózbek til biliminde gender koncepti boyınsha ilimiy izertlewler 2011-jılda A.A.Morozovaniń dissertaciyasınıń baslanǵan[2]. Bul ilimiy jumısta gender streotipleriniń lingvistikalıq hám kognitiv mazmunı analizlengen. Ózbek lingvistleriniń gender izertlewlerine qosqan úlesleri tek ǵana ózbek tillerinde emes, basqa tiller mısasında da genderdiń til arqalı sáwleleniwini úyreniwge qaratılǵan. Bunnan soń G.I.Ergasheva[3] óziniń kandidatlıq dissertaciyasında inglis hám ózbek tillerindegi frazeologiyalıq birlikler hám paremiyalardaǵı gender aspektlerin salıstırılıp, eki tildiń ózine tán ózgesheliklerin úyrengen. Bul izertlew til biliminde genderdiń lingvistikalıq táreplerine qaraǵanda biraz jańa qatnastı ashıp berdi. Jáne de I.M.Tuxtasinov, E.A.Tuchkova, A.T.Knyazin, G.I.Ergasheva, M.A.Abdurahobova[4] sıyaqlı ilimpazlardıń kandidatlıq hám doktorlıq dissertaciyaları ózbek til biliminde gender máselesiniń jedel rawajlanıp atırǵanlıǵınan derek beredi. Bul izertlewlerde ózbek til bilimindegi gender máselesiniń hár túrli aspektte úyreniliwine sıpatlama berilip, olarǵa tolıq analiz islengen.

Ózbek til biliminde genderdi úyreniw tek basqa tiller menen salıstırıw menen ǵana sheklenip qalmay tuwrıdan-tuwrı ózbek tili materialları tiykarında da ámelge asırılmaqta. F.T.Musaevaniń[5] izertlew jumısında jınıslıq parqlardı sáwlelendiriwshi leksikalıq birlikler analizlengen. Sonday-aq, SH.Q.Gulyamovaniń[6] dissertaciyasında ózbek tilinde evfemizmler arqalı jınıslıq identifikaciya hám genderdiń qalay ańlatılıwı analizlengen. M.Saydxonovtıń[7] kandidatlıq dissertaciyasında, tilde verbal emes qurallardıń genderdi qalay sáwlelendiriwi máselesi kórip shıǵılǵan. Bul jumısta til arqalı jınıslıq parqlardı bildiriwshi jestler, mimikalar hám basqa verbal emes ańlatpalar analizlenedi. Búgingi kúnde genderge tiyisli ilimiy maqalalar, dissertaciyalar hám konferenciyaǵa tezisler sanı keskin artqan. Bul, ózbek til biliminde gender máselelerine bolǵan qızıǵıwshılıqtıń artıp baratırǵanlıǵınan derek beredi.

Genderlik izertlewler jańa baǵdar bolıwına qaramastan qazaq tili tariyxında bul haqqındaǵı dáslepki belgiler XX ásirniń birinshi yarımında kózge taslanadı. Bul ózgeshelikler máselesi sońǵı jıllarda Qazaqstandaǵı tilshi, ádebiyatshı ilimpazlardı ǵana emes, psixolog, sociologlardı da qızıqtırıp úlgergen. A.Baytursinov[8] óz izertlewlerinde dástúriy qazaq mádeniyatında genderge tiyisli tildegi ózgesheliklerdi úyrenip shıqqan. Axmed Baytursinov erler hám hayallar tilindegi parqlardı dástúriy qosıq janrlar arqalı túsindirdi. Ilimpazdıń izertlewlerinde qazaq salt dástúr jırlarınıń besik jırı, joqlaw sıyaqlı túrleri hayallar tárepinen atqarılatuǵın bolsa, betashar hám pátiya er adamlar tárepinen atqarılatuǵınlıǵı ayılǵan. Ol bılay dep jazadı: “Joqlaw –

ólgen kisini joqlap sóylew. Joqlaw kóbinese belgili adamlarǵa ayıladı. Ólgen adamnıń hayalı, ya qızı, ya kelini zarlı dawıs penen ólgen adamnıń tiri waqtındaǵı islegen islerin, ólgeninshe basına túsken qayǵı-hásiret, kúyiklerin shaǵınıp, jılaǵan waqıtta aytatuǵın jır túrindegi sóz; pátiya – birewge alǵıs bergende ayılatuǵın sóz; pátiyanı aqsaqal adamlar aytadı. Pátiya beretuǵın ǵarrılar bası bar tabaqtı tartıwǵa alıp kelgende, astı jep bolǵanda da pátiya qıladı[8]». 2005-jılı Qazaq hayallarınıń jámiyetkegi roli máselesine baylanıslı ótkerilgen “Тендерные исследования в Казахстане” atlı toplam baspadan shıqtı. “Психоллингвистика және әлеуметтік тіл білімі: қазіргі күйі және болашағы” degen atamadaǵı 2003-jılı ótkerilgen xalıq aralıq konferenciyanıń bir sekciyası tolıǵı menen genderlik izertewlerge arnalıp, onda kóplegen izertlewshi alımlar usı tema dógeresinde esabat berdi. Qazaq til biliminde genderlik baǵıttı qalıplestiriwshilerdiń biri – professor Baqıtjan Xasan ulı boldı. Jubanov treningi atlı V xalıq aralıq konferenciya da jasaǵan «Концепция Х.К. Жубанова в контексте гендерной лингвистики» degen maqalasında ilimpaz “XXI ásirdegi qazaq lingvistikası adamzat balasınıń eki bólekke, erler menen hayallarǵa bóliniwin hám olardıń sóylew, minez-qulqınıń ózgesheliklerin izertlewge isenemiz. Bul bóliw tuwralı emes, hayal menen er adamnıń genderlik qatnaslar sistemasındaǵı rolin bahalawda, hayalǵa passiv, baǵınıshlı rol berilgende hám er adamǵa belsendi, adamdı sáykeslendiriwde hám haqıyqıy adamgershilikli qásiyetlerdi erkek penen erkeklik qásiyetler menen ... hám bul til biliminde hám ana sanasında, naqıl-maqallarda kórinis beredi. Er sóylewin norma retinde, al hayal sóylewin normadan shıǵıw retinde usınıw. Bul ideya qániygelerdiń pikirinshe, belgili bir jámiyetkegi hayaldı sıpatlaytuǵın bahalaw pikirleriniń biri hám áhmiyetli bólegin quraydı[9]» - dep keltiredi.

Óz náwbetinde Á.K.Axmetov túrkiy tillerdegi tabu hám evfemizmlerdi úyrenip, qazaq tilinde hayallar tilinde bul elementlerdiń qalay sáwlelenetuǵınlıǵın analizlegen[10]. Q.Jubanov óz miynetlerinde ján-jaqlama izertlew júrgizip[11], Hayallarǵa ǵana arnawlı, sistemalı bolmasa da, hayal tiliniń ózgesheligi qazaqta da joq emes. Sol ózgesheliklerdiń biri hayallarda ǵana bolatuǵın «ernin shıǵarıw» (kemsitkende), «betin shımshıw» (uyatsınǵanda), «awzın shılp etkiziw» (tańlanganda), awzın bırıtdatıw (keketkende). Mine, bunıń sońǵı ekewinde sessiz ım ǵana emes, dawıs shıǵarıw da bar. Biraq, dawıs ańlatıwlı (членораздельный) emes», - deydi.

Qazaq til biliminde genderlik taraw XX ásirdiń aqırı, XXI ásirdegi baslarında alımlardıń qazaq tiline baylanıslı izertlewlerinde, qazaq tiliniń geybir genderlik máselesi boyınsha jazılǵan arnawlı maqalalarda, konferenciyalarda kózge kórine basladı. Bulardıń ishinde genderlik lingvistika, hayaldıń tili, qızdıń sóylew ádebi, Mashhur Jusip

Kópey ulı shıǵarmalarınıń genderlik sıpatı sıyaqlı maqalalar járiyalap, genderlik boyınsha jazılǵan dissertaciyalarǵa jetekshilik etken B.Hasan ulı[9;288], genderlik qarama-qarsılıqlardıń tildegi kórinisin izertlegen Z.K.Sábitova[12;157], qazaq konceptosferasına kiretuǵın ana konceptin kontrastivlik-lingvomádeniy (ana/мать) jaqtan analizlegen N.M.Janpeyisova[12;140], qazaq, rus, inglis tilleri morfologiyası boyınsha genderlik salıstırmalı izertlewler júrgizgen Z.J.Túyebekova[12;279], qazaq til bilimindegi genderlik ayırmashılıqlardı analizlegen hám erler hám hayallar tárepinen qullanılatuǵın sózlerdiń jámiyetlik mádeniy kontekstlerin analizlegen A.D.Seysenova[12], qazaq jámiyetinde erkek hám hayal adamlardıń sóz qollanıwdaǵı parqlanıwın úyrengen G.Mamaeva[12] sıyaqlı izertlewshilerdiń miynetlerin atap ótiw orınlı. Jáne de Z.M.Nurjanova[13], V.D.Narojnaya[13;269], O.L.Soxackaya[13], G.K.Ismáǵulova[13] h.t.b.izertlewlerin de qosıwǵa boladı.

Qaraqalpaq til biliminde gender máselesi endi qolǵa alınıp úyrenilip basladı. Ayırım izertlewlerde arnawlı gender ataması menen berilmegeni menen olardı hár túrli atamada kóriniste ata-anaǵa, erli-zayıpqa, er balaǵa, qız balaǵa yamasa tuwısqanlıq atamalar túrinde izertlewler alıp barıldı. “Gender” ataması menen izertlewler alıp barılmaǵanı – bul úyrenilmedi degen juwmaqtı keltirip shıǵarmawı kerek. Joqarıda atap ótkenimizdey hár túrli aspektte izertlew obyektı sıpatında úyrenilgen. Professor Sh. Abdinazimov “Hayal sózi haqqında” degen maqalasında bul sózdiń kelip shıǵıwı, qaraqalpaq til biliminde qollanıw ózgeshelikleri boyınsha túsinikler keltirilgen. Tuwısqanlıq atamaları boyınsha izertlewler alıp barǵan Z. Dáwletmuratovanıń miynetinde bir neshe tuwısqanlıq atamaların genderlik ózgesheliklerin, atamaların kelip shıǵıwı boyınsha da keń túrde túsinirmeler berip ótilgen. Keyingi waqıtta gender máselesin eki tillik salıstırmalı túrde úyreniwler kózge taslanadı. Ingliz tili hám qaraqalpaq tillerindegi er-hayal túsiniklerine baylanıslı salıstırmalı materiallar tiykarında dáliyllep berilgen izertlewlerdi atap ótsek boladı. Genderlik streotiplerdi folklorlıq dóretpelerde arnawlı túrde izertlep atırǵan Z. Rzamuratova óziniń tezislerinde, maqalalarında hám dissertaciya jumısında qaraqalpaq xalıq dástanlarındǵı gender stereotiplerdiń ózgesheliklerin anıqlaǵan hám genderlektlerdiń leksikalıq hám stillik ózgesheliklerin ashıp beriwın analizlep ótken. Usınday bir qatar ilimiy izertlew jumıslar menen birge maqala hám tezislerdi atap kórsetsek boladı[14].

Juwmaq. Bul maqaladan tómendegishe juwmaqqqa keliw múmkin:

1. Gender túsinigi kópshilik til biliminde, sonıń ishinde qaraqalpaq til biliminde de jańa túsinik bolıp esaplanadı.
2. Til menen jınıs bir-biri menen baylanıslı.

3. Ózbek til biliminde gender máselesiniń izertleniwi A. Morozovaniń kandidatlıq dissertaciyasınan baslangan.
4. Qazaq til biliminde gender máselesi eń dáslep A. Baytursinov tárepinen izertlengen.
5. Qaraqalpaq til biliminde gender máselesin birinshilerden bolıp arnawlı túrde Z. Rzamuratova úyrenip shıqtı.

Qaraqalpaq til biliminde gender máselesi endi qolǵa alınıp atırǵan izertlew bolıp bul baǵdar ele de tereń úyreniliwdi talap etedi. Tilimizdiń bay ǵáziynesi bolǵan xalıq awızeki dóretpeleriniń ishinde ayırıqsha poetikalıq dúziliske iye naql-maqallardıń genderlik ózgesheliklerin stillik xızmetlerin semantikalıq túrlerin úyreniw aldımızda izertleniwin kútip turǵan máseleler bolıp tabıladı.

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ЭКОЛОГИК МАДАНИЯТНИ ЮКСАЛТИРИШДА ИСЛОМ ДИНИ ҒОЯЛАРИДАН ОҚИЛОНА ФОЙДАЛАНИШ ЗАРУРАТИ

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Ҳозирги вақтга келиб, бутун дунё илмий жамоатининг асосий мақсадларидан бири экологик барқарорлик ва хавфсизликни таъминлаш бўйича тадқиқотларни кенг миқёсда олиб боришдир, дея оламиз. Зеро, ҳозирги вақтда барқарор экологик вазиятни, атроф-муҳит мусаффолигини сақлаш ва табиий ресурслардан оқилона фойдаланишнинг муҳим субъектив омили бўлган экологик онгни шакллантириш, ривожлантириш ва юксалтириш, шунингдек “экология соҳасидаги ишларнинг аҳволини яхшилаш” долзарб аҳамиятга эга. Фуқаролар, айниқса, ёшларнинг экологик идроки ва маданиятини юқорига кўтариш мақсадида атроф муҳитнинг тоза бўлишини таъминлаш бўйича уларнинг ижтимоий масъулиятларини ўрганиш муҳим аҳамиятга эга.

Тарихий ривожланишдан олинган маълумотларга кўра, инсон табиатнинг бир бўлаги сифатида Аллоҳнинг яратган барча неъматлардан доимий равишда фойдаланган. Аммо, бугунги кунда ушбу эҳтиёжларнинг ошиши ва турли исрофгарчиликлар кўплаб муаммоларни келтириб чиқармоқда.

Энг муҳим нукта шундаки, инсоннинг табиатга бўлган таъсири қанчалик ортиб бораётганини алоҳида таъкидлаш лозим. Инсоният тараққиётининг замонавий даврида илм-фан ва техника жуда катта ривожланишга эришди. Ўз навбатида, бу ядро энергияси, қуёш энергияси ва кимё саноатининг ислохотлари билан бирга, ишлаб чиқаришнинг автоматлаштирилиши, ахборот технологиялари орасидаги ривожланиш ҳамда бошқа кучли фан-техника соҳаларига кўчиш билан тавсифланади. Бундан ташқари, табиатнинг ер усти ва ер ости ресурсларидан фойдаланиш иқтисодий манфаатларни олдинги қатарга қўйиш орқали "табиат-жамият-инсон" муносабатлари кундан-кунга бузилаяпти. Бу эса ўз навбатида янги экологик муаммоларни уйғонишига сабаб бўлмоқда. Ушбу муаммоларни ҳал қилиш эса бугунги кунда инсониятнинг энг муҳим вазифаларидан бири бўлиб қолмоқда.

Бу борада биринчи президентимиз И.А.Каримов ҳақли равишда: “Экология ҳозирги замоннинг кенг миқёсдаги кескин ижтимоий муаммоларидан биридир, уни ҳал этиш барча халқларнинг манфаатларига мос бўлиб, цивилизациянинг

ҳозирги куни ва келажаги кўп жиҳатдан ана шу муаммонинг ҳал қилинишига боғлиқдир”, деб таъкидлаган эди.

Дарҳақиқат, ҳар бир миллат, халқ ва элатнинг асосий вазифаси — табиат ресурсларидан зарар етказмай, уни маъсул анди фойдаланиш ва муҳофаза қилишдир. Бу вазифани амалга оширишда жамият аъзоларининг, айниқса, келажак авлоднинг тарбиясида эзгулик ғояларини ушлаган инсонларнинг табиатга муносабатига ва у билан боғлиқ қадриятларга катта аҳамият берилмоқда, бу жиҳатда ислом динининг роли жуда муҳимдир.

Бизга маълумки, ислом дини яхшиликка асосланган бўлиб, инсонларни ҳалол ҳаётга, покликка ва табиатга нисбатан адолатли ва ақлли муносабатда бўлишга чақиради. Ҳадисларда Пайғамбаримиз Муҳаммад (соллаллоҳу алайҳи васаллам) айтадилар: “Пок бўлинглар, зеро Ислом пок диндир ва фақат пок кишилар жаннатга кирур”. Ислом дини одамларни табиатни муҳофаза қилишга, ҳайвоният ва ўсимлик дунёсини ҳурмат қилишга, неъматларни истеъмол қилганда исроф қилмасликка, Аллоҳ яратган табиатнинг мувозанатини сақлашга ва ундан тўғри фойдаланишга даъват қилади, шунингдек, она заминга ҳурмат ва меҳр билан муносабатда бўлишни йўлга қўяди.

Жумладан, “Бақара” сурасининг 205 оятида ўсимлик ва ҳайвонот олами инсон учун энг зарур нарсалар экани таъкидланган. Ким буларга зарар етказса, инсониятга зарар етказган бўлади. Қуръони Каримда барча жонзотлар инсонлар каби “уммат” экани таъкидланади. Айнан шу таъкид инсонни ўзи каби уммат бўлган барча жонли мавжудотга нисбатан меҳрибон бўлишга ундайди. Бу хусусда Аллоҳ таоло “Анъом” сурасида бундай дейди: “Ер юзидаги ҳар бир жонзот ва икки қаноти ила учувчи қуш борки, ҳаммаси сиз каби умматлардир” (38 оят), яъни ҳайвонларнинг ҳар бир тури ёки оиласи алоҳида олинган уммат ҳисобланса, айнан шу ҳукм билан улар бошқа умматлар орасида яшашга, мавжудлик ҳаққига эгадир.

Ер юзидаги барча нарсалар инсон учун яратилган, уларга оқилона ёндашган ҳолда, тўғри ва яхши муносабатда бўлиш мақсадга мувофиқдир. Зеро, Аллоҳ таоло “Бақара” сурасининг “У ер юзидаги барча нарсани сизлар учун яратган” деб бошланадиган 29-оятида инсон учун, унинг тасарруфи ва фойдаси учун яратган нарсаларга, жумладан, ер ости бойликлари ва конларга ишора қилади.

Биз буни тўғри англаган ҳолда юртимизда янги авлод, янги тафаккур соҳибларини тарбиялашдек масъулиятли вазифани адо этишда биринчи галда маънавий қадриятларимизда илгари сурилган ғояларга таянишимиз керак. Бу ғоялар ёшларнинг табиатга ва ҳайвонот дунёсига бўлган ижобий муносабатини

шакллантиришда, умуман “табиат-жамият-инсон” тизими муносабатларини уйғунлаштиришда беқиёс аҳамиятга эга.

Юқорида айтиб ўтганимиздек, ислом дини халқимизда табиатга бўлган муносабатни тўғри шакллантиришда муҳим рол ўйнайди. У она Ватанимизнинг табиатини ҳифз қилишга бўлган муҳаббатни янада кучайтиради ва уни асраш орқали келажак авлод учун зарур бўлган ҳаётий шарт-шароитларни таъминлашга хизмат қилади.

Хулоса қилиб айтганда, "табиат-жамият-инсон" тизимидаги муносабатларни мувозанатга келтиришда, Аллоҳ томонидан берилган неъматлардан оқилона фойдаланиш, табиатни асраб-авайлашга оид Ислом динидаги ғоялардан самарали фойдаланиш зарур. Зеро, маънавий қадриятларимиз асосида фарзандларимизнинг онгига атроф-муҳитни тоза сақлаш, ҳавонинг ифлосланишига йўл қўймаслик, мамлакатимиз табиатини, ҳайвонот ва ўсимлик дунёсини асраш каби тушунчаларни сингдиришимиз лозим.

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TEACHING FUNCTIONAL SPEECH STYLES IN RUSSIAN AS A FOREIGN LANGUAGE LESSONS

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Abstract: The article explores the significance of teaching functional speech styles in Russian as a Foreign Language (RFL) classes. It analyzes approaches to the development of stylistic competence and provides recommendations for the effective organization of style instruction within the context of students' academic and professional training.

Keywords: Russian as a Foreign Language, functional styles, stylistic competence, style instruction, RFL methodology, academic writing.

Introduction

Modern methods of teaching Russian as a foreign language at an advanced stage of learning require not only the formation of grammatical and lexical skills, but also the development of stylistic competence as an integral part of communicative competence. In the context of globalization and the expansion of academic and professional ties between representatives of different countries, the mastery of the functional styles of the modern Russian literary language is of particular importance.

Stylistic adequate speech practice is the ability of a student to select and use language tools in accordance with the tasks of communication, the communicative situation, the addressee of the speech and the genre features of the utterance. This presupposes not only knowledge of lexical and grammatical norms, but also a deep understanding of the functional differentiation of language.

Functional styles of speech - scientific, official-business, journalistic, colloquial and artistic - reflect the diversity of speech situations and perform specific communicative functions. For foreign students, scientific and official-business styles are especially relevant, since they serve as the basis for academic writing, preparation of scientific papers, participation in professional correspondence, creation of resumes and other documents.

Teaching styles involves targeted work on developing the ability to distinguish styles, understand their structure, goals and linguistic features, and independently

reproduce texts within the given stylistic framework. In this context, there is a need to develop a methodologically sound system for teaching functional styles based on the principles of communicativeness, systematicity and interdisciplinary approach.

Thus, teaching functional styles within the framework of the RFL course is not just an additional component of language training, but also a key factor in the integration of foreign students into the academic and professional space of Russian-speaking society.

1. Theoretical foundations of functional styles

Functional styles are structurally and substantively designed subsystems of the literary language, each of which serves a specific sphere of speech communication. They are distinguished by a set of characteristic lexical and grammatical means, genre features, communicative tasks and types of speech activity. The theoretical substantiation of the concept of functional style is most fully presented in the works of V. V. Vinogradov, M. N. Kozhina, as well as modern researchers of stylistics.

According to the traditional classification, the main functional styles of the Russian literary language include:

- *scientific style, focused on accuracy, logic and objectivity of presentation;
- *official business style, characterized by standardization and normativity of formulations;
- *journalistic style, combining information content with emotional impact;
- *conversational style, reflecting everyday informal communication;
- *artistic style, possessing expressiveness and aesthetic orientation.

In the context of teaching Russian as a foreign language, priority attention is given to scientific and official-business styles, as they are most in demand in the educational and professional spheres. These styles form the foundations of academic writing in students, the ability to format texts according to genre standards and effectively participate in formal communicative situations. Formation of skills for perceiving and producing texts of the specified styles is a key stage in mastering the functional side of the language.

2. The Importance of Stylistic Competence in Teaching Russian as a Foreign Language

Stylistic competence is an integral component of communicative competence and represents the ability of a native speaker of a foreign language to adequately perceive, interpret and reproduce texts of various functional styles, taking into account their communicative goals, genre specifics and speech norms. In the context of teaching Russian as a foreign language (RFL), the development of stylistic competence acquires

special significance, since it ensures not only the correctness of speech, but also its relevance and functionality in a specific communication situation.

The main components of stylistic competence include:

**knowledge of language means and typical constructions characteristic of each functional style, including vocabulary, phraseology, syntax and methods of text organization;*

**ability to select adequate speech forms and structure of utterance depending on the purpose, addressee and communication situation;*

**skills in stylistic editing and text analysis, allowing to identify violations of stylistic integrity, correct them and form stable speech models.*

Without the proper level of stylistic training, it is impossible to form a full-fledged linguistic personality of a foreign speaker capable of integrating into the academic and professional community. This is especially relevant for students studying in Russian-language educational institutions, where mastering the norms of academic and official business style is the most important condition for successful learning and subsequent professional activity. Thus, the development of stylistic competence should be considered a priority task in the system of RFL methodology at the intermediate and advanced stages of training, requiring a systematic approach, the use of authentic texts and modeling of real communicative situations.

3. Methodological approaches to teaching functional styles Efficient development of stylistic competence in students of Russian as a foreign language is impossible without a carefully thought-out methodological strategy based on modern didactic principles and psycholinguistic features of mastering a foreign language. In the RCL methodology, the most effective approaches are integrative, situational-communicative and comparative-analytical to teaching functional styles.

3.1. Integrative approach

The integrative approach assumes the organic inclusion of teaching functional styles into the general system of speech skills formation. It is based on the idea of parallel development of all components of communicative competence - lexical, grammatical, sociocultural and stylistic. Within the framework of this approach, elements of various styles are introduced at all stages of training with a gradual increase in their complexity and functional load. For example, at the initial stage, students become familiar with clichéd expressions of official correspondence, and at the advanced stage, they master the stylistic structure of scientific articles and business documents.

3.2. Situational-communicative method

The situational-communicative method is based on modeling speech situations that are as close as possible to real professional or academic practice. Students are offered tasks that imitate real communicative tasks: writing annotations, composing resumes, preparing business letters, reports, reports, etc. Such organization of the educational process allows students not only to master stylistic norms, but also to develop skills in the pragmatic use of language in typical communicative contexts. The method contributes to the formation of sustainable motivation, since students clearly understand the applied nature of the acquired knowledge and skills.

3.3. Comparative-analytical approach

Comparison and analysis of texts belonging to different functional styles is an important tool for developing stylistic thinking. This approach involves completing tasks to compare lexical, grammatical, compositional and genre features of different texts (for example, a scientific article and a journalistic note, a business letter and informal correspondence). Students learn to recognize style markers, assess the appropriateness of speech means, and identify typical errors associated with interference of the native language or other stylistic violations. The comparative-analytical method also promotes the development of critical thinking and text-centered analysis skills.

4. Practical implementation in lessons

Practical implementation of teaching functional styles in the process of teaching Russian as a foreign language requires a systematic approach, which is based on the consistent formation of productive and receptive skills for working with texts of various genres and stylistic varieties. The effectiveness of this process largely depends on the quality and variety of learning tasks that correspond to real communicative tasks, as well as the level of cognitive activity of students.

An important element is the use of authentic texts and tasks that are as close as possible to real academic and professional situations. This contributes not only to the development of stylistic competence, but also to the deepening of socio-cultural understanding.

Typical types of tasks that help develop skills for functioning within different functional styles include:

- *Writing an abstract for a scientific article, where students learn to briefly and logically convey the content of the study while observing the lexical and syntactic norms of scientific style.

- *Drafting an official letter, application or request, including knowledge of the structure of business correspondence, communication etiquette, the use of standard speech formulas and officialisms.

*Translating a journalistic text from the native language and adapting it to the stylistic norms of the Russian language, which develops intercultural competence and the ability to maintain style when translating.

*Stylizing a neutral text to fit a given functional style (for example, transforming an information message into a scientific report or a journalistic note), which requires the active use of knowledge about the style, genre, addressee and purpose of the statement.

When performing such tasks, special attention should be paid to reflection and systemic feedback from the teacher. Regular analysis of typical errors associated with violation of the stylistic norm and stylistic correction of students' texts are necessary conditions for the formation of a conscious and sustainable skill of functioning in different speech registers. In addition, it is advisable to introduce a portfolio of stylistic tasks, which allows tracking the dynamics of competence development, and also motivates students to independently work with texts and critically analyze their own speech practice.

Conclusion:

Teaching functional styles of speech in the system of teaching Russian as a foreign language is an integral part of the formation of a full-fledged communicative competence of foreign language students. Mastering the features of various functional styles is not only a sign of the student's linguistic maturity, but also the basis for his successful integration into the academic and professional community. In the context of globalization and increasing intercultural mobility, it is stylistic competence that allows us to ensure the adequacy of speech behavior in various communicative spheres and socio-cultural contexts.

Modern methods of Russian as a foreign language require a systematic and differentiated approach to teaching styles: it is necessary to combine theoretical mastery of stylistic norms with practice-oriented tasks aimed at developing the skills of analysis, editing and production of texts. The key condition for the effectiveness of this process is the integration of stylistic training into all aspects of language learning - lexical, grammatical, textual and communicative.

Thus, the success of teaching functional styles largely depends on:

- * methodological appropriateness and scientific validity of the approaches used;
- * regular work with authentic genre samples;
- * organizing active feedback and reflective activities of students.

The development of stylistic competence should not be considered as a by-product of language learning, but as its priority goal at an advanced stage, ensuring the readiness

of students for meaningful, competent and functionally appropriate use of the Russian language in academic and professional среде.

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РОЛЬ ЯЗЫКА В МЕЖКУЛЬТУРНОЙ КОММУНИКАЦИИ

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Аннотация: В данной статье рассматривается значение межкультурной коммуникации в контексте преподавания русского языка как иностранного (РКИ). Отмечается, что успешное овладение иностранным языком невозможно без учета культурных особенностей обучающихся и развития межкультурной компетенции. Статья включает анализ теоретических подходов к межкультурному взаимодействию, включая концепции Холла и Хофстеде, и выделяет ключевые трудности, с которыми сталкиваются преподаватели РКИ при обучении студентов из разных культурных сред. Особое внимание уделяется методическим стратегиям, направленным на интеграцию культурных компонентов в учебный процесс: ролевые игры, дискуссии, работа с аутентичными материалами, знакомство с социокультурными реалиями России. Также рассматриваются способы формирования толерантности, эмпатии и уважительного отношения к различным культурам. Представлены практические рекомендации для преподавателей, стремящихся создать продуктивную межкультурную образовательную среду.

Ключевые слова: русский как иностранный, межкультурная коммуникация, межкультурная компетенция, преподавание языка, культурные барьеры, социокультурная адаптация, толерантность.

Annotation: This article discusses the importance of intercultural communication in the field of teaching Russian as a foreign language (RFL). The author argues that language acquisition is deeply connected to cultural understanding, and that fostering intercultural competence among both instructors and learners is a crucial element of effective education. The paper provides a theoretical overview of intercultural communication, referencing models developed by Hall and Hofstede, and highlights common challenges faced by educators working with multicultural groups of students.

Special focus is given to teaching methods that integrate cultural elements into the learning process, such as role-plays, open discussions, use of authentic texts, and the exploration of Russian social norms and traditions. The article also addresses the importance of tolerance, empathy, and cultural awareness in the language classroom. Practical strategies are suggested to help educators develop an inclusive and culturally sensitive teaching environment.

Keywords: *russian as a foreign language, intercultural communication, intercultural competence, language teaching, cultural barriers, sociocultural adaptation, tolerance.*

Введение

Межкультурная коммуникация является неотъемлемой частью преподавания русского языка как иностранного (РКИ). Успешное овладение языком невозможно без понимания культурных особенностей страны, носителя языка. С увеличением глобализации и межкультурных обменов, преподавание РКИ становится не только задачей передачи лексических и грамматических навыков, но и важным аспектом для развития межкультурной компетенции студентов. В данном контексте важно рассмотреть, как эффективное использование межкультурной коммуникации влияет на обучение РКИ, а также какие методы и подходы могут быть использованы для оптимизации этого процесса.

В условиях стремительно глобализирующегося мира и интенсификации межкультурных контактов проблема эффективного взаимодействия между представителями различных языковых и культурных сообществ приобретает особую актуальность. Преподавание русского языка как иностранного (РКИ) перестает быть исключительно лингвистической задачей: оно все более очевидно интегрируется в более широкий контекст межкультурной коммуникации, что требует пересмотра традиционных педагогических парадигм и методологических подходов.

Межкультурная коммуникация, будучи междисциплинарным понятием, охватывает широкий спектр теоретических и практических вопросов, связанных с процессами смыслопорождения, интерпретации и адаптации в условиях культурного многообразия. В рамках преподавания РКИ данная концепция приобретает особое значение, так как язык рассматривается не только как средство передачи информации, но и как носитель культурных кодов, норм, ценностей и поведенческих моделей. Таким образом, успешное овладение русским языком

немыслимо без адекватного понимания культурной специфики русскоязычного пространства.

Теоретические основы межкультурной коммуникации

Межкультурная коммуникация представляет собой сложный и многоуровневый процесс обмена информацией между представителями различных культурных сообществ. Она охватывает не только вербальные, но и невербальные формы общения, интерпретация которых существенно зависит от культурного контекста. Современные исследования в области психолингвистики, социолингвистики и культурологии подчеркивают, что язык является не только средством общения, но и отражением культурной идентичности, менталитета и системы ценностей носителей языка.

Изучение русского языка как иностранного (РКИ) в межкультурном контексте требует от преподавателя и обучающихся осознания того, что овладение языком невозможно без параллельного освоения культурных норм и поведенческих моделей. Таким образом, преподавание РКИ не может быть ограничено лишь передачей грамматических и лексических знаний: оно должно включать формирование межкультурной компетенции.

Существенный вклад в развитие теории межкультурной коммуникации внесли такие ученые, как Эдвард Холл, Георг Ризер и Жан-Пьер Бажин. Эдвард Холл, в частности, выделил важные параметры культуры, влияющие на коммуникацию, такие как восприятие времени (монохронное и полихронное восприятие), пространственные предпочтения (proxemics), а также контекстуальность общения (high-context и low-context культуры). Эти параметры напрямую влияют на то, как люди из разных культур интерпретируют одни и те же коммуникативные сигналы.

Значение культурной осведомленности в образовательном процессе

Межкультурная компетентность становится ключевым элементом успешного овладения русским языком. Она предполагает не только знание лингвистических норм, но и умение действовать адекватно в новых социокультурных условиях. Включение компонентов межкультурной коммуникации в образовательную программу по РКИ способствует формированию у студентов способности к культурному релятивизму, толерантности и гибкости мышления.

Таким образом, теоретическое осмысление и практическое внедрение основ межкультурной коммуникации в процесс преподавания РКИ позволяет добиться более глубокого и устойчивого усвоения языка, а также подготовить обучающихся к полноценному участию в межкультурном диалоге.

Культурные барьеры и их преодоление в процессе обучения

Одним из ключевых аспектов, который необходимо учитывать при обучении РКИ в Узбекистане, является преодоление культурных барьеров. Преподавание русского языка должно быть не только направлено на формирование лексических и грамматических навыков, но и включать в себя элементы, способствующие пониманию и уважению культурных различий. Важно развивать у студентов способность распознавать и интерпретировать культурные коды, характерные для русскоязычных стран. Например, знания о русской литературной традиции, праздниках, исторических событиях, особенностях поведения и общения играют важную роль в глубоком и полном усвоении языка.

Практическое применение межкультурной компетенции в обучении

Практическое применение межкультурной компетенции в преподавании РКИ может быть реализовано через интеграцию в учебные материалы ситуаций, в которых учащиеся сталкиваются с реальными межкультурными взаимодействиями. Это могут быть роли, диалоги, анализ культурных различий через фильмы, литературу, музыку, обсуждения текущих событий в обеих странах. Преподавание на основе межкультурной компетенции способствует более глубокому и устойчивому усвоению языка, а также помогает студентам подготовиться к реальным ситуациям общения, где знание культуры играет не менее важную роль, чем знание языка.

Языковая компетенция и культурная адаптация. Знание языка дает возможность не только коммуницировать, но и адаптироваться к новым культурным условиям. Например, использование фразеологизмов, пословиц и поговорок помогает студентам глубже понять менталитет носителей языка.

Социальный контекст языка. Важно, чтобы обучение РКИ включало в себя не только лексические и грамматические аспекты, но и понимание того, как язык используется в разных социальных контекстах (формальные и неформальные ситуации общения).

Языковая компетенция в контексте РКИ охватывает не только грамматическую правильность и словарный запас, но и умение применять их с учётом речевой ситуации, намерения говорящего и норм общения. Включение прагматических и социолингвистических элементов становится ключом к подлинной коммуникативной успешности. Согласно Ж. Дюбуа, «владеющий языком не тот, кто знает правила, а тот, кто умеет адекватно действовать в речевой ситуации».

Кроме того, коммуникативно-направленное обучение предполагает развитие **функциональной грамотности** — способности использовать язык в устной и письменной форме с учетом целей и условий общения.

Методологические стратегии интеграции культурной компоненты в РКИ

1. **Кейс-методы и ролевые игры** — способствуют освоению моделей поведения в типичных социокультурных ситуациях.
2. **Сравнительный анализ** (русская и родная культура обучающихся) — формирует критическое мышление и культурную рефлексию.
3. **Аутентичные тексты и медиаконтент** — способствуют развитию навыков интерпретации культурно-специфичных реалий.
4. **Формирование метаязыковой осведомленности** — обсуждение, как выражаются в языке эмоции, вежливость, иерархия, гендерные роли и т. д.

Методы преподавания РКИ с акцентом на межкультурную коммуникацию.
Интеграция культурных аспектов в процесс обучения. Преподавание РКИ должно включать в себя изучение литературы, кино, музыки и традиций России. Это помогает студентам не только улучшать языковые навыки, но и лучше понимать особенности мышления и поведения русскоязычных людей. Например, изучение русской классической литературы или просмотр фильмов дает студентам возможность увидеть и почувствовать культуру через язык.

Использование ролевых игр и ситуационных заданий. Ролевые игры — это отличный способ моделировать реальные межкультурные коммуникации. Студенты могут принимать на себя различные роли, что позволяет не только практиковать язык, но и понимать поведение в определенных социальных контекстах. Обсуждение межкультурных различий. Важно предоставлять студентам возможность обсуждать различия в культурах. Для этого можно использовать тексты, аудио- и видеоматериалы, которые показывают, как люди из

разных стран решают те или иные социальные проблемы. Такие обсуждения способствуют развитию критического мышления и понимания различий.

Использование технологий для создания виртуальных культурных обменов. Современные технологии позволяют создавать виртуальные пространства для общения студентов с носителями языка. Например, участие в видеоконференциях с русскоязычными студентами или виртуальные экскурсии по российским городам могут значительно обогатить опыт студентов.

Применение подхода "кросс-культурного взаимодействия". Преподаватели РКИ могут стимулировать студентов к более глубокому изучению и анализу межкультурных различий. Важно использовать разнообразные методы, такие как проекты, презентации, дискуссии, где студенты смогут делиться своими культурными особенностями, что способствует лучшему пониманию культуры другой страны.

Заключение

Проведённое исследование убедительно подтверждает, что межкультурная коммуникация является неотъемлемым компонентом процесса преподавания русского языка как иностранного (РКИ) в условиях глобализирующегося мира. Современные тенденции в области лингводидактики подчеркивают необходимость перехода от исключительно лингвоцентрической парадигмы к более комплексному, междисциплинарному подходу, в котором особое место занимает культурологический и межкультурный компоненты.

Русский язык выступает не только как средство межличностного и межгруппового общения, но и как репрезентант системы ценностей, исторического опыта, ментальности и культурных норм русского народа. В связи с этим преподавание РКИ должно опираться на интеграцию лингвистических, социокультурных и когнитивных стратегий, направленных на формирование полноценной коммуникативной компетенции обучающихся. Преподаватель РКИ, таким образом, выполняет роль медиатора между культурами, способствующего осознанию культурных различий, развитию эмпатии и навыков критического мышления, необходимых для эффективного межкультурного взаимодействия.

Одной из ключевых задач преподавания РКИ становится развитие у иностранных обучающихся способности к интерпретации и переосмыслению социокультурных реалий на основе сравнительного анализа родной и целевой культур. Эффективность этого процесса напрямую зависит от методического арсенала преподавателя: включение в учебный процесс аутентичных текстов и медиа, использование проектных методов, моделирование реальных коммуникативных ситуаций, анализ культурных феноменов и их семиотической значимости в контексте русской культуры.

Таким образом, межкультурный подход в обучении РКИ не только способствует более глубокому усвоению языкового материала, но и обеспечивает формирование устойчивых поведенческих и ценностных установок, необходимых для успешной социализации личности в условиях многоязычного и мультикультурного мира. Внедрение межкультурного компонента в преподавание русского языка как иностранного способствует воспитанию толерантности, развитию глобального мышления и повышению уровня адаптивности обучающихся, что соответствует стратегическим задачам современной гуманитарной педагогики.

Интеграция принципов межкультурной коммуникации в методику РКИ должна рассматриваться как стратегически значимое направление, ориентированное на формирование гармонично развитой, социально ответственной личности, способной к продуктивному межкультурному диалогу и активному участию в международном сообществе.

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**"THE IMAGE OF WANDERING" IN MODERN UZBEK PROSE
IN THE INTERPRETATION OF ISAJON SULTAN'S WORK "THE ETERNAL
WANDERER".**

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Abstract: This article examines the image of wandering in the novel "The Eternal Wanderer" by Isajon Sultan.

Keywords: novel, world literature, image, wandering, immortality.

In the period of independence, along with the traditional novels that flourished in our novel writing, unconventional novels also began to be created. One of the artistic features characteristic of such novels is the creation of mythopoetic novels. As one of the bright achievements of Uzbek prose in this category, we can cite the work of Isajon Sultan "The Eternal Wanderer". The image of the eternal wanderer first appeared in world literature in the 13th century (in the book "The Great Chronicle" compiled in 1228), and we can partially see the presence of this image in the works of various writers, in particular, in Russian literature, in the novel "The Golden Calf" by Ilya Ilf and Evgeny Petrov, and in Mikhail Bulgakov's novel "The Master and Margarita". In the literature of European nations, the eternal wanderer is more often found not as a person, but as a person who lives forever. In particular, the fact that Jesus is eternally alive and the events related to his execution are described in different ways.

A significant idea about the appearance of the image of the immortal wanderer in world literature is mentioned by Doctor of Philology, Professor Damin Turayev in his article "Philosophical Adventure Novel" dedicated to the novel "The Immortal Wanderer": "There are several mature novels, stories, and narratives in world literature on the theme of the "Immortal Wanderer". The most mature of them are works such as "Melmo the Wanderer" by Charles Methure in English literature, "Agasphere" by French writer Eugene Onegin, and the story "The Immortal Man" by Luis Borges. But Isajon Sultan takes a different path. The man in his novel creates an artificial human in secret scientific centers in the West in order to perpetuate his rule over the whole world. The immortal man, who has perfect intelligence, understands the power of the god who

created this world with his intellectual intelligence, and, considering cloning in laboratories to be against God and a sin, escapes from the cage of evil inventors and becomes an eternal wanderer”.¹

Uzbek literature is known for its rich heritage and rare works. Among them, Isajon Sultan's novel "The Eternal Wanderer" holds a special place. The writer said in one of his interviews: "One day, I thought deeply and came to the conclusion that the money I earn does not bring happiness, and I began to feel like a wanderer. Wanderership is not only about wandering around the streets, there are other types of it. For example, if you were asked if you would exchange five years of your life for a car, would you give it, or even one year, would you not? Or, would young people give you a day or a minute? No, you cannot. If you think that you will give only a minute, how do you know that the happiness of your life is in that very minute. Thinking about it, you may not give it either." So, when there are different forms of wanderership, For example, Rumi sees wandering not only as a physical state, but also as a search for a spiritual path. He encourages a person to travel to his inner world and true self. In his opinion, a person should actually strive to explore his inner experiences and spiritual state rather than any external wandering. He emphasizes that through the conflicts and difficulties of life, a person can understand himself and gain a deeper spiritual experience.

Despite its small size, Isajon Sultan's novel "The Eternal Wanderer" was recognized as the best novel of the year in Uzbekistan in 2010. In 2011, it was first published in the magazine "Star of the East", and then as a separate book. The novel reveals a number of features of postmodernism, a new approach to a theme that has been developed in world literature and our classical literature for many centuries. The novel is not large in size, but it contains a number of questions that encourage people to think and ponder. The work is complex, there is no main character in it, but the author wrote the work so perfectly that the characters of the characters and the development of events are beautifully described with the liveliness and uniqueness of the language of the work of art. While reading the work, it seemed that the events were proceeding smoothly, and then there were intermittent events, what is the author trying to say, what is the main theme? Is it the value of man or the belated repentance of a group of scientists who rebelled against the will of God, or perhaps the fall of a group of scientists who wanted to rule the entire universe? The writer tries to explain to the reader why the universe and man were created, that the world was created perfectly, that nothing can happen without

¹ Damin Turayev "Philosophical adventure novel" "Turon zamin ziya" publishing house 2017 y.

the permission of the Creator. The writer does not choose one hero for the novel, but a path, and this is not just an ordinary path, but a path of "desperation".

Scholar D. Toshpulatova says about the work, "It becomes clear that for Isajon Sultan, the dimensions of immortality and desolation consist in showing the causes and consequences that have plunged the authors of the cloned human, who opposed spiritual poverty and ignorance and revolutionized the cursed field of science and technology, into a pit of ruthless mud."²

The novel "The Eternal Wanderer" covers several topics. It explores topics such as modern life and its problems, the hardships of life, and the relationships between people. Through this work, Isajon Sultan raised his own thoughts, but also issues related to humanity in general.

The author divides the work into three parts. The first part begins with the scene of the execution of Mubarak. The author does not provide any information about the personality of Mubarak, where the events take place, or for what sin Mubarak is being punished. As Mubarak, who was vilified by the entire people, was being led away as a condemned man, a street shoemaker, who was leaning against the wall of his house in order to make a good impression in front of the crowd, shouted at Mubarak and pushed him away, thereby incurring a curse: "Now you are condemned to be a blasphemer until the Day of Judgment. And all you do is nothing, nothing, nothing at all."

In the second part, Professor Zia's son tells a bitter truth in a letter to his father: "People want to live a long life, but they also know that long life in this world consists of hardship and work. Those who want to stay in the world for a long time cannot find a way to escape the ever-approaching hardships of old age. And even if they find one, they do not realize that the world itself will one day disappear." This is the same truth. The goal of scientists at the international conference was to create an eternally living person. They succeeded in this in a sense, but can he be called a human? Unfortunately, this creature, which can quickly change its appearance, escapes and is doomed to eternal exile. Scientists have gone against the laws of the universe and have suffered degradation.

We can see this in the conclusion given in the third part of the work. "On a newly opened sand page, a man is walking alone across the desert.

He was a tall, naked man with long hair that fell to his shoulders. You will remember this man even more in later centuries. Sometimes he is mentioned as a symbol of people condemned to wander, sometimes as a symbol of destinies and nations, and he is called "The Eternal Wanderer".

² D.Toshpulatova "Author's consciousness in modern Uzbek prose and forms of its expression" dissertation 2022

Although attempts to improve humans have been going on for thousands of years, today's event was a sign that humanity is entering a new phase, concluding its quest. Professor Zia's son says that the solution to all puzzles is to believe in the Creator and to accept the eternal destiny. "I now see such people in every country, in every corner of the world, along with honest and faithful people... I am looking for ways not to be in such a predicament," he says.

Literary critic Dilmurot Kuronov writes about this: "In "Boqiy Darbadar", instead of the plot typical of a traditional epic, events that take place in different places and times, sometimes in reality, sometimes in fantasy, are described, and although there is no hero at the center like in a treatise, they are united by the author's personality, who is absorbed in thinking about one thing - the meaning of life and the fate of humanity, turning them into a single whole - a novel..."³. After this definition by Dilmurot Kuronov, it can be said that this is not only a work of art, but also a work of postmodernism that can interest readers as a work of life philosophy and deep psychological analysis. After all, depicting the world in various fragments was considered one of the main laws of postmodernism.

Isajon Sultan, speaking about the novel "The Eternal Wanderer", said: "This little novel of only eighty pages was written for a very long time, I started it around 1998. It seemed that there were many people in the world who had lost their holy destinations and goals and were wandering around the world, but I could not find a form for expression. Interestingly, a shoemaker raised his hand to Jesus (peace be upon him) and was cursed with the curse of eternal life. I had never even thought about the possibility that eternal life could be a disaster, although countless people are running around in the world in the desire to stay forever." The writer spent almost twenty years thinking about writing the work, cooking reality in the world of imagination. Searching for meaning in life.

Literary critic Rahimjon Rahmat, who wrote the afterword to the author's book "The Eternal Wanderer", also expresses the following idea: "The feeling that prompted Isajon to write the work "The Eternal Wanderer" is precisely the extraordinarily strong feeling of the end, the smooth and vivid feeling of the grinding of the values of this world in the great mill called the end. This feeling is the initial basis of the work "The Eternal Wanderer". The writer understands that the melodies of wandering prevail in the melody called life that man plays"⁴.

³ Dilmurot Kuronov "Thought-provoking works" "Star of the East" magazine 2010.

⁴ Rahimjon Rahmat From "Munojot" to "Eternal Wanderer" Turan Zamin Ziya 2017.

While writing the work, the writer tries to write at the intersection of the laws of creation of the universe, examples of folk oral creativity, the harmony of religious and modern views, and technological achievements. This work describes the internal contradictions of man, difficulties in life and spiritual searches. The life difficulties presented through images in the work attract many readers and encourage them to compare them with their own lives. Reading this work helps readers better understand the human psyche, its problems and goals in life. The work has caused many analyzes and studies. This, of course, increases its literary value. The works of the writer, who has managed to win the love of many readers with his creative examples, are currently being translated into several languages.

The conclusion drawn from the novel is that we cannot be equal to the Creator, that we are helpless servants in front of His power, that a human being cannot claim eternity, genius, or godhood, and that when the time comes, a person can easily surrender his soul. A single mistake made without thinking is condemned to eternal "misery" until the Day of Judgment. In order for a person not to be condemned to eternal misery, he must acquire knowledge and use it for good. It is necessary to believe in the Creator, fate is eternal, and only prayer can change it. At this point, I found the wise words of Rumi to be appropriate: "O heart, why are you unaware of the world? You are busy day and night collecting worldly goods. You take one shroud from the worldly goods, and whether you will take that or not is in doubt.

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МЕТАФОРИЗАЦИЯ ВКУСА: КАК ЕДА ГОВОРIT В ИТАЛЬЯНСКОМ ЯЗЫКЕ

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Аннотация

Статья посвящена анализу гастрономических метафор в итальянском языке с позиций когнитивной и культурной лингвистики. Исследование показывает, что вкусовые характеристики (сладость, горечь и др.) используются для выражения эмоций, социальных отношений и идентичности. Материалом послужили тексты из художественной литературы, рекламы и СМИ. Сопоставление с русским языком позволяет выявить универсальные и культурно-специфические аспекты метафоризации. Гастрономические метафоры демонстрируют высокую когнитивную значимость и междискурсивную гибкость.

Ключевые слова: метафора, вкус, гастрономия, итальянский язык, культура, идентичность.

METAPHORIZATION OF TASTE: HOW FOOD ‘SPEAKS’ IN THE ITALIAN LANGUAGE

Abstract

This article explores gastronomic metaphors in the Italian language from the perspective of cognitive and cultural linguistics. The study demonstrates that taste-related characteristics (such as sweetness, bitterness, etc.) are used to express emotions, social relationships, and identity. The analysis is based on texts from literary works, advertising, and mass media. A comparison with the Russian language reveals both universal and culturally specific aspects of metaphorization. Gastronomic metaphors show high cognitive relevance and interdiscursive flexibility.

Keywords: metaphor, taste, gastronomy, Italian language, culture, identity

Введение

Язык отражает не только способ общения, но и культурные представления. Особое место в этом контексте занимает пища: гастрономическая метафора служит каналом выражения эмоционального и социального опыта. В итальянском языке выражения, где вкусовые качества становятся когнитивными и символическими маркерами (например, *dolce vita*, *amaro destino*), демонстрируют богатую культурную семантику.

Цель настоящей работы — выявить механизмы метафоризации вкуса в итальянском языке и определить их роль в репрезентации эмоций, социальных отношений и культурной идентичности.

Методы

Исследование основано на качественном лингвистическом анализе, объединяющем когнитивную и культурную лингвистику. Использовались данные из фразеологических словарей, итальянских корпусов, медиа, рекламы и художественных текстов. Анализ строился в три этапа:

1. Сбор выражений, в которых вкусовые признаки обозначают абстрактные понятия.
2. Классификация по типам концептуальных проекций.
3. Интерпретация значений в типичных контекстах с акцентом на когнитивную мотивацию.

Результаты

Вкусовые характеристики (например, *dolce*, *amaro*, *piccante*, *insipido*) в итальянском языке метафорически переосмысляются для описания эмоций, личных качеств и социальных явлений. Так, выражения вроде *una parola piccante* или *addolcire la pillola* становятся инструментами оценивания, смягчения и провокации. Образы еды также активно применяются в медиа и рекламе: например, *gusto deciso*, *passione intensa* используются для усиления эмоционального эффекта и формирования брендинга.

Также обнаружены символические переносы, где гастрономическая лексика маркирует повседневные реалии: *pane quotidiano* символизирует рутину, *una minestra riscaldata* — неудачные попытки восстановить прошлое.

Сравнительный анализ с русским языком показывает, что в итальянской модели преобладают сенсорные и эстетические коннотации, в то время как в русском — ассоциации с хаосом и внутренним беспорядком (например, *винегрет в голове*).

Обсуждение

Метафоры вкуса функционируют как когнитивные схемы, описывающие широкий спектр понятий. Это подтверждает постулаты теории концептуальной метафоры о телесности и конкретности как основе абстрактного мышления. Итальянская традиция подчеркивает телесное наслаждение и эстетику, что отражается в лексике. Помимо художественной речи, гастрономические метафоры активно интегрируются в профессиональные и сленговые регистры, что расширяет их функциональный диапазон.

Заключение

Гастрономическая метафора в итальянском языке — это не просто стилистическое средство, а целостный механизм когнитивной и культурной категоризации. Вкусовая лексика позволяет выразить эмоциональную и социальную идентичность, а её интердискурсивная гибкость демонстрирует устойчивость и адаптивность. Перспективными направлениями для дальнейших исследований являются региональные идиомы и миграционные контексты, где формируются новые модели метафоризации.

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MILLIY ME'MORCHILIK VA ZAMONAVIY DIZAYN SINTEZI O'ZBEKCHA USLUBDA INNOVATSIYA

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Annotatsiya: O'zbek me'morchiligi o'zining boy tarixiy merosi, nafis bezak san'ati va funksional dizayn yechimlari bilan dunyo arxitektura madaniyatida alohida o'rin egallaydi. Bugungi kunda esa ushbu me'moriy an'analarni zamonaviy texnologiyalar va global dizayn tamoyillari bilan uyg'unlashtirishga ehtiyoj ortib bormoqda. Bu jarayon "milliy me'morchilik va zamonaviy dizayn sintezi" deb ataladi. Mazkur maqolada o'zbekcha uslubda innovatsion loyihalash, milliy shakl va naqshlarning zamonaviy talqini, shuningdek, amaliy misollar tahlil qilinadi.

Kalit so'zlar: milliy arxitektura, zamonaviy dizayn, naqsh, innovatsiya, uyg'unlik, girih, peshtoq.

Milliy me'moriy meros asoslari

O'zbek me'morchiligi asrlar davomida rivojlangan bo'lib, uning asosiy unsurlari quyidagilardan iborat:

Gumbaz va peshtoq — monumental me'moriyatning timsoli.

Muqarnas va girih naqshlari — matematik asoslangan dekorativ bezaklar.

Ayvon, hovli va mehrob — iqlimga mos va ma'naviy ahamiyatga ega fazoviy elementlar.

Sopol koshinlar — rang-baranglik va ramziy ifodaning boy namunasi.

Bu unsurlar qadimiy Buxoro, Samarqand, Xiva kabi shaharlardagi Registon, Poyi Kalon, Tosh Hovli kabi me'moriy ansambllarda namoyon bo'lgan.

Zamonaviy dizayn va texnologiyalar yondashuvi

Bugungi arxitektura, bir tomondan, funksionallik, energiya samaradorligi va tejamkorlikni talab qilsa, boshqa tomondan, estetika va madaniy identifikatsiyani saqlashga intiladi. Zamonaviy dizaynda quyidagi yondashuvlar ko‘zga tashlanadi:

- Minimalizm va ochiq fazoviy rejalashtirish
- Yorug‘lik, tabiiy havo aylanishi va yashil elementlar bilan uyg‘unlik
- 3D texnologiyalar, BIM modellashtirish, AR/VR texnikasi orqali loyihalash
- Ekologik toza va qayta ishlanuvchi materiallardan foydalanish

Shunday qilib, dizaynerlar va me‘morlar milliy ruhni zamonaviy shakl va texnik vositalar bilan ifodalash yo‘llarini izlamoqda.

Sintezga doir amaliy misollar

1. Toshkentdagi “Minor masjidi” – zamonaviy materiallar bilan barpo etilgan, ammo an‘anaviy gumbaz va naqshlar asosida yaratilgan muqaddas bino.
2. “Silk Road Samarkand” majmuasi – zamonaviy turizm infrastrukturasida milliy me‘moriy estetikani muvaffaqiyatli uyg‘unlashtirishga misol.
3. Yangi loyihalardagi ayvonli uylar – o‘zbekcha ichki hovli tushunchasi saqlangan, biroq zamonaviy energiya samaradorlik tizimlari bilan jihozlangan.
4. Maktab va bog‘cha binolarida milliy naqshlar – yangi qurilayotgan ijtimoiy inshootlarda girihlar, qandil shakllari va simmetrik panjaralar ishlatilmoqda.

Muhim qiyinchiliklar va yechimlar

Milliy va zamonaviy uslubni uyg‘unlashtirishda me‘morlar quyidagi muammolarga duch keladi:

- Zamonaviy qurilish materiallari bilan milliy estetikani saqlash qiyinligi
- Texnik normativlar bilan milliy me‘moriy shakllar orasidagi tafovut
- Moliyaviy cheklovlar sababli dekorativ elementlardan voz kechish

Bunga yechim sifatida quyidagilarni ko‘rsatish mumkin:

- Yarim an‘anaviy, yarim texnogen uslublarni ishlab chiqish
- Milliy naqshlarni lazer kesim va 3D bosma orqali ishlab chiqarish

-Talabalarga va yosh mutaxassislarga milliy arxitektura asoslarini chuqur o'rgatish

Milliy me'morchilik va zamonaviy dizayn sintezi – bu faqatgina tashqi ko'rinish emas, balki madaniy xotira va innovatsion fikrlash uyg'unligi demakdir. O'zbek arxitekturasining noyob uslublarini zamonaviy yechimlar bilan boyitish nafaqat estetik, balki identitet va barqaror rivojlanishga xizmat qiladi.

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ARXITEKTURA VA EKOLOGIYA BARQAROR RIVOJLANISH KONSEPSIYALARI

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Annotatsiya: XXI asr arxitekturasi faqat estetik go'zallik yoki funksional qulaylik bilan cheklanmaydi. Endilikda, har bir yangi bino yoki inshoot ekologik xavfsizlik va barqaror rivojlanish talablari asosida loyihalanishi kerak. Iqlim o'zgarishi, resurslar tanqisligi va urbanizatsiya muammolari arxitektura oldiga ekologik ongli yondashuvlarni qo'llash vazifasini qo'yimoqda. Mazkur maqolada barqaror arxitektura tamoyillari, ekologik dizaynning amaliy yechimlari va O'zbekiston tajribasi yoritiladi.

Kalit so'zlar: barqaror arxitektura, ekologik dizayn, energiya tejamkorlik, yashil bino, O'zbekiston arxitekturasi.

Barqaror arxitektura tushunchasi

Barqaror arxitektura (sustainable architecture) – bu tabiatga zarar yetkazmasdan, hozirgi ehtiyojlarni qondiruvchi, kelajak avlod uchun xavfsiz va samarali inshootlarni yaratish konsepsiyasidir. U quyidagi asosiy tamoyillar asosida quriladi:

1. Energiya tejamkorlik

Binolarda quyosh panellari, issiqlik izolyatsiyasi, passiv isitish va shamollatish tizimlari orqali energiya sarfi kamaytiriladi.

2. Suvni tejash

Yomg'ir suvini yig'ish tizimlari, "kulrang suv"ni qayta ishlash, suvni tejovchi sanitariya vositalari ekologik inshootlar uchun zarur.

3. Qayta ishlanuvchi materiallardan foydalanish

Yog‘och, bambuk, qayta ishlangan beton va po‘latlar, shuningdek, mahalliy resurslar barqaror qurilishda muhim rol o‘ynaydi.

4. Atrof-muhit bilan integratsiya

Inshootlar mavjud landshaft, iqlim sharoiti va ekologik tizimlar bilan uyg‘unlashgan bo‘lishi kerak. Buning uchun “yashil tomilar”, vertikal bog‘lar, tabiat bilan to‘g‘ridan-to‘g‘ri aloqalar yaratiladi.

Zamonaviy ekologik arxitektura misollari

The Crystal (London, Buyuk Britaniya) – energiyani o‘zi ishlab chiqaradigan, atrof-muhitga zarar keltirmaydigan ofis binosi.

Masdar City (BAA) – to‘liq ekologik shahar loyihasi, barcha inshootlar quyosh energiyasiga asoslangan.

Bosco Verticale (Milan, Italiya) – ikki osmono‘par turar joy minorasida 900 dan ortiq daraxt va buta mavjud, u binoning o‘z “mikroiqlimi”ni yaratadi.

O‘zbekiston tajribasi va imkoniyatlari

O‘zbekistonning iqlim sharoitlari – yozda issiq va quyoshli, qishda esa sovuq bo‘lishi barqaror arxitekturaning joriy qilish uchun qulay imkoniyat yaratadi. Quyidagi yondashuvlar mamlakatda allaqachon qo‘llanilmoqda yoki rivojlanmoqda:

1. Quyosh energiyasidan foydalanish

Buxoro, Navoiy, Samarqand kabi quyoshli hududlarda quyosh panellari bilan ta‘minlangan maktab va tibbiyot muassasalari qurilmoqda.

2. Yashil sertifikat tizimi

“Green Building Council Uzbekistan” tomonidan xalqaro LEED va BREEAM standartlariga muvofiq loyihalar baholanmoqda.

3. Milliy an‘analarni ekologik yechim sifatida qo‘llash

Ichki hovli, ayvonli tuzilma, tabiiy shamollatish va soyali ravoqlar – bular qadimiy arxitekturaning o‘zi barqarorlikka xizmat qilganini ko‘rsatadi.

Muammolar va takliflar

- Barqaror arxitektura O‘zbekistonda hali keng joriy etilmagan. Asosiy to‘siqlar:
- Qurilish materiallarining mahalliy ekologik alternativlari yetarli emas;

- Quruvchilar va me'morlar orasida ekologik bilimlar yetishmaydi;
- Dastlabki investitsiya talablari yuqori.

Shu muammolarni bartaraf etish uchun:

- Ekologik loyihalarni rag'batlantiruvchi qonunchilik mexanizmlarini kuchaytirish;
- Me'morchilik fakultetlarida "barqaror dizayn" kurslarini joriy etish;
- Mahalliy tabiiy materiallarni ilmiy asosda o'rganish va ishlab chiqarishni yo'lga qo'yish zarur.

Arxitektura va ekologiya uyg'unligi zamonaviy davr talabi hisoblanadi. O'zbekiston kabi tabiiy resurslarga boy va tarixiy me'morchilik an'alariga ega yurtida barqaror arxitektura konsepsiyasini rivojlantirish – kelajak avlod uchun ekologik, estetik va iqtisodiy barqaror muhit yaratishga xizmat qiladi.

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YASHIL ARXITEKTURA TABIAT BILAN UYG‘UNLASHGAN ZAMONAVIY DIZAYN

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Annotatsiya: Mazkur maqolada yashil arxitektura tushunchasi, uning asosiy tamoyillari, ekologik va iqtisodiy afzalliklari hamda zamonaviy arxitektura jarayonlaridagi o‘rni tahlil qilinadi. Bundan tashqari, dunyo va O‘zbekiston amaliyotidan misollar keltirilib, yashil arxitekturaning rivojlantirish istiqbollari muhokama qilinadi.

Kalit so‘zlar: yashil arxitektura, ekologik dizayn, energiya tejamkorlik, tabiiy materiallar, barqaror rivojlanish.

XXI asrda ekologik muammolarning keskinlashuvi va urbanizatsiya jarayonining jadallashuvi insoniyatni atrof-muhit bilan uyg‘unlikda yashashga undamoqda. Shu nuqtai nazardan, arxitektura sohasi ham yangi, ekologik barqaror yondashuvlarga ehtiyoj sezmoqda. Yashil arxitektura ana shunday ehtiyojlar negizida shakllangan konsepsiyadir. Bu nafaqat texnologik yutuqlar, balki falsafiy qarashlar majmuasini ham ifoda etadi.

Yashil arxitekturaning mohiyati va tamoyillari

Yashil arxitektura (Green Architecture) – bu ekologik jihatdan barqaror, energiyani tejovchi, tabiiy resurslardan oqilona foydalanuvchi bino va inshootlarni loyihalash va qurish yondashuvidir. U quyidagi asosiy tamoyillarga tayanadi:

Energiya samaradorligi: Quyosh panellari, issiqlik izolyatsiyasi, shamollatish tizimlari orqali energiya sarfini kamaytirish.

Tabiiy materiallardan foydalanish: Yog‘och, bambuk, qayta ishlangan g‘isht kabi ekologik xavfsiz materiallardan foydalanish.

Suv resurslarini tejash: Yomg'ir suvi yig'ish tizimlari, suvni qayta ishlash texnologiyalari.

Landshaft bilan uyg'unlik: Atrofdagi tabiiy muhitga zarar yetkazmasdan bino loyihalash.

Zamonaviy arxitektura va yashil dizayn uyg'unligi

Bugungi kunda yirik shaharlar nafaqat funksionallik, balki ekologik uyg'unlikni ham asosiy mezon sifatida ko'radi. Binolarning tomida joylashgan yashil bog'lar, vertikal o'simlik devorlari (living walls), quyosh nurlari bilan to'liq yoritiladigan interyerlar – bular yashil arxitekturaning zamonaviy misollaridir.

Masalan: Bosco Verticale (Milan, Italiya): ikki osmono'par bino fasadida 900 dan ortiq daraxt va o'simlik joylashgan.

The Edge (Amsterdam, Niderlandiya): dunyodagi eng aqlli va energiya tejankor ofis binosi sifatida tanilgan.

O'zbekiston sharoitida yashil arxitektura istiqbollari

O'zbekiston iqlimi – quyoshli kunlar ko'pligi, qurg'oqchilik va suv tanqisligi yashil arxitekturani joriy etish uchun muhim zamin yaratadi. Ayniqsa, quyosh panellaridan foydalanish, yomg'ir suvi yig'ish tizimlari, ichki hovli (ayvon) asosida shamollatish tizimlarini rivojlantirish katta natija berishi mumkin. Toshkentdagi ayrim yangi turar-joy majmualari, masalan, "Green City" loyihasi ana shu tamoyillar asosida ishlab chiqilgan.

Yashil arxitektura – bu zamonaviy arxitekturaning ekologik ongli rivojlanish bosqichidir. U inson salomatligi, iqtisodiy samaradorlik va tabiiy muhit muvozanatini birlashtiradi. Yurtimizda ham bu yo'nalishdagi yondashuvlarni rivojlantirish, qurilish standartlariga yashil tamoyillarni kiritish orqali barqaror va estetik shaharlar barpo etish mumkin.

Yashil Arxitekturaning Asosiy Tamoyillari

Yashil arxitektura ekologik barqarorlikni ta'minlashga qaratilgan bo'lib, quyidagi asosiy tamoyillarga asoslanadi:

1. Barqaror joylashuvni rejalashtirish:
2. Energiya samaradorligi:
3. Suv resurslarini tejash:

4. Ekologik toza materiallardan foydalanish: Qayta ishlangan yoki tabiiy materiallar, masalan, bambuk, yog'och, qayta ishlangan g'isht va boshqa ekologik xavfsiz materiallar ishlatiladi.

5. Ichki muhit sifatini yaxshilash: Binolarda tabiiy yoritish, shamollatish va past VOC (uchuvchi organik birikmalar) darajasiga ega materiallar orqali sog'lom ichki muhit yaratiladi.

Zamonaviy Yashil Arxitektura Namunalari:

1. Pearl River Tower – Guanchjou, Xitoy

Bu 71 qavatli osmono'par bino to'liq energiya samaradorligi tamoyillariga asoslangan. Uning dizaynida quyidagilar mavjud:

Shamol turbinalari: Binoning tuzilishi shamol oqimini maksimal darajada ushlashga mo'ljallangan bo'lib, bu orqali elektr energiyasi ishlab chiqariladi.

Fotovoltaik panellar: Quyosh energiyasini elektr energiyasiga aylantirish uchun binoning tashqi qismida joylashgan.

Ikki qavatli fasad tizimi: Issiqlik izolyatsiyasini ta'minlab, ichki muhitni barqaror saqlaydi.

Issiqlikni qayta tiklash tizimi: Binodagi issiqlik energiyasini qayta ishlatish orqali energiya tejamkorligini oshiradi.

Bu bino o'zining ilg'or texnologiyalari bilan yashil arxitekturaning yorqin namunasi hisoblanadi.

2. Rolex Pavilion – Venetsiya Arxitektura Biennalesi 2025

Arxitektor Mariam Issoufou tomonidan loyihalashtirilgan bu pavilyon quyidagi xususiyatlarga ega:

- Qayta ishlangan yog'och va shisha materiallar
- Murano ustalari tomonidan yaratilgan rangli shisha shift:
- Multimedia ko'rgazmalar:

O'zbekistonda Yashil Arxitektura Rivoji

O‘zbekistonning iqlim sharoiti – quyoshli kunlar ko‘pligi, qurg‘oqchilik va suv tanqisligi – yashil arxitekturani joriy etish uchun qulay imkoniyatlar yaratadi. Quyidagi yo‘nalishlarda rivojlanish kuzatilmoqda:

- Quyosh energiyasidan foydalanish
- Yomg‘ir suvini yig‘ish tizimlari
- Mahalliy materiallardan foydalanish

Yashil arxitektura – bu nafaqat ekologik barqarorlikni ta'minlash, balki inson salomatligi, iqtisodiy samaradorlik va estetikani birlashtirgan yondashuvdir. Zamonaviy texnologiyalar va an'anaviy uslublarni uyg‘unlashtirish orqali yashil arxitektura kelajak shaharsozligining ajralmas qismiga aylanmoqda.

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