

CLINICAL CHARACTERISTICS AND REGIONAL FEATURES OF
STREPTOCOCCAL TONSILLOPHARYNGITIS AMONG CHILDREN IN
SURXONDARYO REGION

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Abstract: *This article analyzes the clinical course of tonsillopharyngitis caused by Group A beta-hemolytic streptococcus among children within the unique climatic conditions of the Surxondaryo region. The study examines the acute onset of the disease, the degree of manifestation of local and systemic symptoms, and the regional epidemiological situation. The article highlights the challenges of differential diagnosis and the critical importance of timely antibiotic therapy in preventing complications such as rheumatic fever and glomerulonephritis. The findings serve as practical recommendations for pediatricians and otorhinolaryngologists in the region.*

Keywords: *Streptococcal tonsillopharyngitis, children, Surxondaryo climate, Group A streptococcus, diagnostics, prevention.*

Annotatsiya: *Ushbu maqolada Surxondaryo viloyatining o'ziga xos iqlimiy sharoitida bolalar o'rtasida A guruhiga mansub beta-gemolitik streptokokk qo'zg'atadigan tonzilofaringitning klinik kechishi tahlil qilinadi. Tadqiqot davomida kasallikning o'tkir boshlanishi, mahalliy va umumiy simptomlarning namoyon bo'lish darajasi hamda hududiy epidemiologik holat o'rganilgan. Maqolada differensial diagnostika muammolari va o'z vaqtida o'tkazilgan antibiotikoterapiyaning asoratlarni (revmatizm, glomerulonefrit) oldini olishdagi ahamiyati yoritilgan. Olingan natijalar viloyat pediatr va otorinolarologlari uchun amaliy tavsiya sifatida xizmat qiladi.*

Kalit so'zlar: *Streptokokkli tonzilofaringit, bolalar, Surxondaryo iqlimi, A guruhidagi streptokokk, diagnostika, profilaktika.*

Аннотация: *В данной статье анализируются особенности клинического течения тонзиллофарингита, вызванного бета-гемолитическим стрептококком группы А, у детей в специфических климатических условиях*

Сурхандарьинской области. В ходе исследования изучены острота начала заболевания, степень выраженности местных и общих симптомов, а также региональная эпидемиологическая ситуация. В статье освещены проблемы дифференциальной диагностики и роль своевременной антибиотикотерапии в предотвращении серьезных осложнений, таких как ревматизм и гломерулонефрит. Полученные результаты могут служить практическими рекомендациями для педиатров и оториноларингологов региона.

Ключевые слова: *Стрептококковый тонзиллофарингит, дети, климат Сурхандарьи, стрептококк группы А, диагностика, профилактика.*

Today, infectious diseases of the upper respiratory tract remain one of the most pressing challenges in pediatrics and otorhinolaryngology. In particular, acute tonsillopharyngitis (ATP) caused by **Group A beta-hemolytic streptococcus** (*Streptococcus pyogenes*) is distinguished by its specific clinical course and the severity of its complications. According to World Health Organization data, more than 600 million people worldwide are infected with this pathogen annually. The unique natural and climatic conditions of the **Surxondaryo region**—characterized by extreme air aridity, intense summer heat, and sharp temperature fluctuations during the spring and autumn seasons—adversely affect the local protective functions of the upper respiratory mucosa in children. This creates a favorable environment for the easy penetration of bacterial infections, particularly streptococci, into the child's organism and the rapid progression of pathological processes. The risk level of ATP is not limited solely to local inflammation; it is manifested in the high probability of developing systemic complications such as acute rheumatic fever, glomerulonephritis, and post-streptococcal arthritis due to incorrect or delayed treatment. In the remote districts of the Surxondaryo region, limited diagnostic capabilities and the frequent practice of self-medication by parents (including the improper use of antibiotics) lead to the transition of the disease into a chronic form and the emergence of resistant bacterial strains. **The objective of this research** is to study the modern clinical and epidemiological characteristics of streptococcal tonsillopharyngitis among children in the Surxondaryo region and to analyze effective early diagnosis methods to reduce the risk of complications.

The hot and dusty climate of the Surxondaryo region, combined with high inter-district mobility, creates a fertile ground for the rapid transmission of airborne infections among children. Our observations indicate that in the regional context,

streptococcal tonsillopharyngitis (STP) often manifests abruptly with acute clinical signs. In the majority of pediatric patients, a sudden rise in body temperature to $39\text{--}40^{\circ}\text{C}$ has been observed within the very first hours of the disease. Due to the influence of Surxondaryo's arid air, the moisture of the throat mucosa decreases, leading to severe odynophagia (painful swallowing) and significant discomfort. Upon clinical examination, the tonsils appear not only hyperemic but also markedly edematous, occasionally causing a noticeable narrowing of the upper airways. The presence of white purulent spots or diffuse exudates across the lacunae is a definitive hallmark of the bacterial process. In the southern districts of our region (such as Termez, Sherobod, and Muzrabot), symptoms of dehydration manifest more rapidly in children due to the high ambient temperatures. Consequently, STP patients in these areas experience more severe systemic intoxication—including general malaise, intense headache, and even nausea—compared to those with viral infections. The enlargement of submandibular lymph nodes and acute tenderness upon palpation serve as critical signals, differentiating this condition from viral pharyngitis and pointing specifically toward a streptococcal infection. Regrettably, in many instances, parents attempt to self-medicate at home as soon as a child develops a sore throat. This practice often suppresses the streptococcal load without eradication, causing the disease to transition into a latent phase. Our experience demonstrates that the systematic use of the **McIsaac scoring system** and, where possible, **Rapid Strep-tests** is the most effective diagnostic approach. A clinical presentation of fever and tonsillar exudate in the absence of a cough indicates an 80% probability of streptococcal etiology. Our analyses across the Surxondaryo region show that Group A Streptococcus remains sensitive to traditional penicillin and amoxicillin-group medications. However, the failure to complete the full 10-day treatment course—specifically, ceasing medication as soon as the fever subsides—remains the primary factor contributing to the high incidence of rheumatic fever and heart defects in the region. Effective communication between the physician and parents regarding the necessity of a complete therapeutic course is of paramount importance in this process.

In the pediatric practice of the Surxondaryo region, managing streptococcal tonsillopharyngitis primarily requires improving the quality of differential diagnosis. Under the specific hot climate of the region, local changes in the throat area are often masked by symptoms of systemic intoxication, necessitating high clinical vigilance from physicians. From a practical standpoint, the systematic application of the **McIsaac criteria** in every clinical case and the use of rapid antigen detection tests,

whenever possible, are decisive factors in preventing diagnostic errors. This approach not only facilitates early detection of the disease but also significantly reduces the irrational prescription of antibiotics to children suffering from viral pharyngitis. The practical effectiveness of treatment largely depends on the duration and consistency of the selected antibacterial therapy. Observations conducted within the Surxondaryo territory indicate that Group A Streptococcus (GABS) remains highly sensitive to penicillin and amoxicillin preparations; however, the primary challenge lies in the premature cessation of the treatment course. Therefore, conducting educational outreach with parents regarding the importance of a **full ten-day therapy course** is considered a strategic task in clinical practice. Continuing the therapy until the tenth day ensures the complete eradication of the pathogen from the organism, thereby minimizing the incidence of severe complications such as acute rheumatic fever and post-streptococcal glomerulonephritis in the region. Furthermore, within the framework of practical recommendations, adapting the child's lifestyle and dietary regimen to the regional climate plays a crucial role. Due to the aridity of the air, ensuring **adequate hydration** to accelerate the regeneration of the mucous membranes and maintaining humidified air in living spaces should be regarded as integral parts of the treatment process. During the post-infection rehabilitation period, conducting follow-up laboratory analyses and cardiac examinations two weeks later must be implemented as a mandatory standard. Such a holistic approach serves as a fundamental tool in safeguarding pediatric health and curbing the long-term negative consequences of infectious diseases in the region.

In the unique dry and hot climatic conditions of the Surxondaryo region, the progression of streptococcal tonsillopharyngitis among children is characterized by high levels of systemic intoxication and a marked predisposition to complications. Clinical observations indicate that the accurate identification of the disease in its early stages serves as a cornerstone—not only for the rapid alleviation of clinical symptoms but also for preventing severe regional consequences such as acute rheumatic fever and renal pathologies. The widespread implementation of the **Mclsaac score** and modern **rapid diagnostic tests** enables physicians to clearly differentiate between viral and bacterial infections, thereby restricting the irrational use of antibiotics. One of the most significant findings of this study is that the key to successful treatment lies not only in the correctly selected pharmacological agent but also in the **full completion of a ten-day therapeutic course**. Within the regional context, enhancing medical literacy

among parents and strengthening sanitary-educational outreach is of strategic importance.

Specifically, ensuring that treatment is not discontinued as soon as the fever subsides and adhering to post-infection follow-up examinations are essential guarantees for the long-term preservation of pediatric health. In conclusion, it should be emphasized that strict adherence to diagnostic standards and ensuring the continuity of treatment in the fight against streptococcal tonsillopharyngitis in the Surxondaryo region will serve to stabilize the current pediatric epidemiological situation and significantly reduce the incidence of acquired heart defects.

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