



ADDRESSING JAWBONE DEFECTS POST-COVID-19 COMPLICATIONS: A MULTIDISCIPLINARY APPROACH TO COMPLEX TREATMENT

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ABSTRACT:

This thesis addresses the intricate challenges of treating jawbone defects that arise as post-complication phenomena in patients who have recovered from COVID-19. It aims to propose a comprehensive treatment protocol that encompasses both the novel insights into the relationship between severe viral infections and maxillofacial bone health, and the advanced therapeutic approaches available to reconstruct and rehabilitate affected jawbone structures.

Key words: periodontology, metabolism, Pathophysiology, maxillofacial surgery, potential risks.

COVID-19 dan KEYINGI YANG SUYAGI NOMONLARINI BILAN QO'RISH:

KOMPLEKS DAVOLAGA KO'P TARMOQLI YONDOSILISH ANNOTATSIYA:

Ushbu dissertatsiya COVID-19 dan tuzalgan bemorlarda asoratdan keyingi hodisalar sifatida yuzaga keladigan jag' suyagi nuqsonlarini davolashning murakkab muammolarini ko'rib chiqadi. U og'ir virusli infeksiyalar va jag' suyagi salomatligi o'rtasidagi munosabatlarga oid yangi tushunchalarni hamda jag' suyagining ta'sirlangan tuzilmalarini rekonstruksiya qilish va rehabilitatsiya qilish uchun mavjud ilg'or terapevtik yondashuvlarni o'z ichiga olgan keng qamrovli davolash protokolini taklif qilishdan iborat.

Kalit so'zlar: periodontologiya, metabolizm, patofiziologiya, yuz-jag jarrohligi, potentsial xavflar.

УСТРАНЕНИЕ ДЕФЕКТОВ ЧЕЛЮСТИ И ОСЛОЖНЕНИЙ ПОСЛЕ Covid-19:





МУЛЬТИДИСЦИПЛИНАРНЫЙ ПОДХОД К КОМПЛЕКСНОМУ ЛЕЧЕНИЮ

АБСТРАКТНЫЙ:

В данной диссертации рассматриваются сложные проблемы лечения дефектов челюстной кости, возникающих как пост-осложнения у пациентов, выздоровевших от COVID-19. Его цель — предложить комплексный протокол лечения, который включает в себя как новые знания о взаимосвязи между тяжелыми вирусными инфекциями и здоровьем челюстно-лицевых костей, так и передовые терапевтические подходы, доступные для реконструкции и реабилитации пораженных структур челюстной кости.

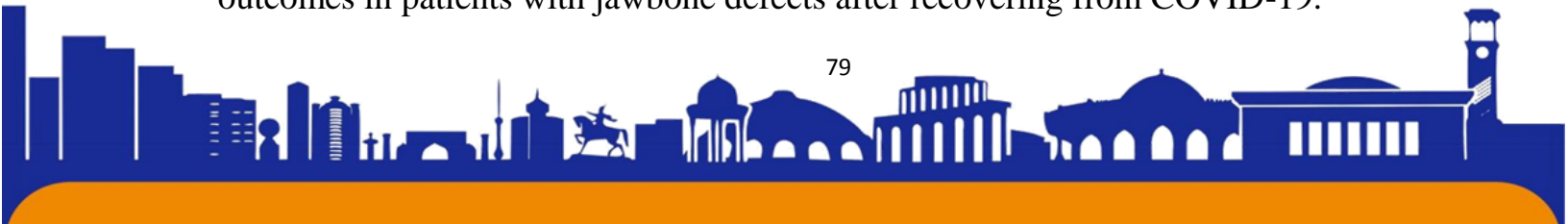
Ключевые слова: пародонтология, обмен веществ, патофизиология, челюстно-лицевая хирургия, потенциальные риски.

INTRODUCTION:

- Overview of COVID-19 and its broad range of complications.
- Relationship between systemic diseases and oral health, with specific attention to bone metabolism affected by severe illnesses like COVID-19.
- The prevalence of jawbone defects post-COVID-19 and their impact on patients' quality of life.
- Importance of developing evidence-based multidisciplinary treatment plans.
- Exploration of COVID-19 effects on bone health, with a focus on maxillofacial regions.
- Pathophysiology of jawbone defects related to infectious diseases and systemic inflammation.
- Review of the latest regenerative techniques and materials for jawbone defect treatment.
- Analysis of case reports and clinical studies addressing maxillofacial rehabilitation post-COVID-19.

Materials and Methods:

1. Designing of a systematic review protocol for the evaluation of treatment outcomes in patients with jawbone defects after recovering from COVID-19.





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2. Criteria for case inclusion and the evaluation process for treatment effectiveness.

3. Outline of the multidisciplinary approach involving oral and maxillofacial surgery, periodontology, prosthodontics, and potentially other specialties.

4. Description of data collection, analysis strategies, and ethical considerations.

Results:

Compilation of data and treatment outcomes from selected cases.

Analysis of different complex treatment approaches: Bone grafting, guided bone regeneration, distraction osteogenesis, and tissue engineering techniques.

Comparative assessment of surgical and conservative management options.

Discussion:

Discussion of the findings in the context of existing treatment protocols for bony defects.

Assessment of the effectiveness, potential risks, and benefits of various treatment methodologies.

Consideration of challenges unique to the post-COVID-19 condition.

Exploration of the role of interdisciplinary collaboration in patient management.

Conclusion:

- Summary of the most effective and reliable treatment approaches for jawbone defects post-COVID-19.

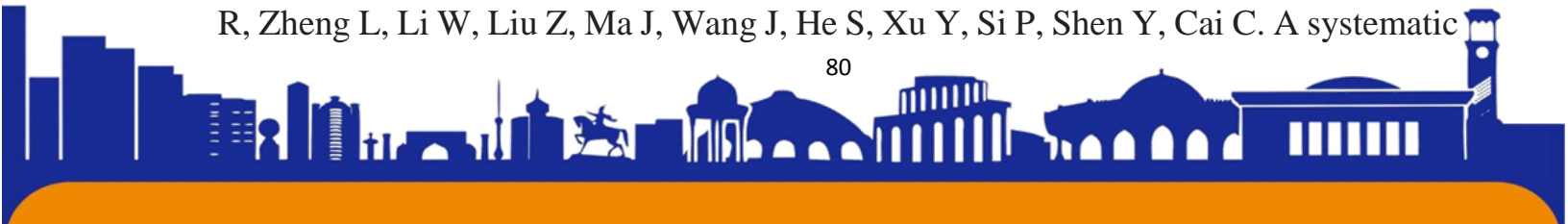
- Outline the implications of the findings for clinical practice and patient care protocols.

- Recommendations for future research to advance the understanding and management of such conditions.

REFERENCES:

1. Pradhan M, Shah K, Alexander A, Ajazuddin, Minz S, Singh MR, Singh D, Yadav K, Chauhan NS. COVID-19: clinical presentation and detection methods. *J Immunoassay Immunochem.* 2022 Jan 2;43(1):1951291. doi: 10.1080/15321819.2021.1951291. Epub 2021 Aug 6. PMID: 34355645.

2. Cui X, Zhao Z, Zhang T, Guo W, Guo W, Zheng J, Zhang J, Dong C, Na R, Zheng L, Li W, Liu Z, Ma J, Wang J, He S, Xu Y, Si P, Shen Y, Cai C. A systematic





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review and meta-analysis of children with coronavirus disease 2019 (COVID-19). *J Med Virol.* 2021 Feb;93(2):1057-1069. doi: 10.1002/jmv.26398. Epub 2020 Sep 28. PMID: 32761898; PMCID: PMC7436402.

3. Sreepadmanabh M, Sahu AK, Chande A. COVID-19: Advances in diagnostic tools, treatment strategies, and vaccine development. *J Biosci.* 2020;45(1):148. doi: 10.1007/s12038-020-00114-6. PMID: 33410425; PMCID: PMC7683586.

4. Khelminskaya NM, Posadskaya AV, Kravets VI, Arzhantsev AP. COVID-indutsirovannyi nekroz chelyustnykh kostei [COVID-induced facial bones necrosis]. *Stomatologiya (Mosk).* 2023;102(1):73-77. Russian. doi: 10.17116/stomat202310201173. PMID: 36800790

5. Suresh A, Joshi A, Desai AK, Juturu U, Kurian DJ, Jain P, Kulkarni RD, Kumar N. Covid-19-associated fungal osteomyelitis of jaws and sinuses: An experience-driven management protocol. *Med Mycol.* 2022 Feb 2;60(2):myab082. doi: 10.1093/mmy/myab082. PMID: 35076069; PMCID: PMC8822410.

6. Datarkar A, Gadve V, Dhoble A, Palve D, Daware S, Anukula H, Walkey D. Osteomyelitis of Jaw Bone due to Aspergillosis in Post-COVID-19 Patients: An Observational Study. *J Maxillofac Oral Surg.* 2024 Apr;23(2):308-315. doi: 10.1007/s12663-023-02041-z. Epub 2023 Nov 16. PMID: 38601236; PMCID: PMC11001796.

7. Mañón VA, Balandran S, Young S, Wong M, Melville JC. COVID-Associated Avascular Necrosis of the Maxilla-A Rare, New Side Effect of COVID-19. *J Oral Maxillofac Surg.* 2022 Jul;80(7):1254-1259. doi: 10.1016/j.joms.2022.04.015. Epub 2022 May 6. PMID: 35588767; PMCID: PMC9072768.

