

UDC 616.314-089:616.31-002

**THE ROLE OF SURGICAL DENTISTRY IN THE COMPREHENSIVE TREATMENT
OF ODONTOGENIC INFECTIONS**

Nurmatov Ortiq Sattarovich

Assistant Department of Dentistry, Faculty of Postgraduate Education,
Samarkand State Medical University,
Samarkand, Uzbekistan.

Almardonov Tursunali Shaymardon ugli

1st year resident in Surgical dentistry
Samarkand State Medical University Samarkand, Uzbekistan.

ANNOTATSIYA

Yuz-jagʻ sohasi odontogen infeksiyalari zamonaviy stomatologiyaning eng keng tarqalgan va klinik ahamiyatga ega muammolaridan biri boʻlib qolmoqda. Antibakterial terapiya va diagnostika usullarining rivojlanishiga qaramay, yalligʻlanish jarayonlarining asoratlangan shakllarining chastotasi kamaymayapti, bu esa davolashga kompleks yondashuvni talab qiladi. Ushbu maqolada odontogen infeksiyalarni kompleks davolash tizimida jarrohlik stomatologiyasining oʻrni koʻrib chiqiladi. Kasallikning turli bosqichlarida qoʻllaniladigan asosiy jarrohlik usullari, ularning infeksiya tarqalishining oldini olish va hayot uchun xavfli asoratlar rivojlanishidagi ahamiyati tahlil qilingan. Jarrohlik aralashuvlarini dori-darmon terapiyasi bilan uygʻunlashtirishga, shuningdek, minimal invaziv davolashning zamonaviy tendensiyalariga alohida eʼtibor qaratilgan. Xirurgik stomatologiyaning odontogen infeksiyalarni samarali va oʻz vaqtida davolashning ajralmas tarkibiy qismi sifatidagi asosiy roli haqida xulosa qilingan.

Kalit soʻzlar: odontogen infeksiyalar, xirurgik stomatologiya, yuz-jagʻ sohasi, yalligʻlanish kasalliklari, kompleks davolash.

АННОТАЦИЯ

Одонтогенные инфекции челюстно-лицевой области остаются одной из наиболее распространённых и клинически значимых проблем современной стоматологии. Несмотря на развитие антибактериальной терапии и диагностических методов, частота осложнённых форм воспалительных процессов не снижается, что обуславливает необходимость комплексного подхода к лечению. В данной статье рассматривается роль хирургической стоматологии в системе комплексного лечения одонтогенных инфекций. Проанализированы основные хирургические методы, применяемые на различных этапах заболевания, их значение в предотвращении распространения инфекции и развитии жизнеугрожающих осложнений. Особое внимание уделено сочетанию хирургических вмешательств с медикаментозной терапией, а также современным тенденциям минимально инвазивного лечения. Сделан вывод о ключевой роли хирургической стоматологии как неотъемлемого компонента эффективного и своевременного лечения одонтогенных инфекций.



Ключевые слова: одонтогенные инфекции, хирургическая стоматология, челюстно-лицевая область, воспалительные заболевания, комплексное лечение.

ANNOTATION

Odontogenic infections of the maxillofacial region remain a significant problem in modern dentistry due to their high prevalence and the risk of severe complications. Despite substantial advances in antibacterial therapy, surgical treatment continues to play a leading role in comprehensive management. This article examines the role of surgical dentistry in the treatment of odontogenic infections and analyzes the main surgical methods aimed at eliminating the primary source of inflammation and preventing the spread of infection. It is demonstrated that timely surgical intervention combined with rational pharmacological therapy contributes to a reduction in complication rates and improved clinical outcomes.

Keywords: odontogenic infections, surgical dentistry, maxillofacial region, abscess, phlegmon, comprehensive treatment.

Introduction. Odontogenic infections occupy a significant place in the structure of inflammatory diseases of the maxillofacial region. The source of infection is usually carious lesions of the teeth and their complications, such as pulpitis and periodontitis. In the absence of timely treatment, the infectious process may spread to the bony structures of the jaws and surrounding soft tissues, leading to the development of abscesses, phlegmons, osteomyelitis, and generalized conditions.

The modern concept of managing odontogenic infections is based on a comprehensive approach that includes surgical elimination of the inflammatory focus and subsequent pharmacological correction. In this context, surgical dentistry plays a key role in ensuring the effectiveness of therapeutic measures.

Etiology and Pathogenesis of Odontogenic Infections

The main etiological factors in the development of odontogenic infections are polymicrobial associations that include both aerobic and anaerobic microorganisms. The spread of infection depends on the anatomical and topographical features of the maxillofacial region, the patient's immune status, and the timeliness of medical care.

As the inflammatory process progresses, purulent foci form, accompanied by pronounced intoxication and functional impairment of the affected area. Without surgical intervention, the risk of severe complications increases significantly.

Surgical Methods in the Treatment of Odontogenic Infections

Surgical treatment is the primary stage of therapy for most forms of odontogenic infections. Its main objective is to eliminate the primary source of infection and ensure adequate drainage of the inflammatory focus.

The principal surgical methods include:



- extraction of the causative tooth;
- incision and drainage of abscesses and phlegmons;
- apicoectomy (root-end resection);
- surgical management of odontogenic osteomyelitis.

The use of modern minimally invasive techniques allows for reduced surgical trauma, shortened healing times, and a lower incidence of postoperative complications.

Comprehensive Treatment and the Role of Pharmacological Therapy

Surgical intervention must be combined with rational antibacterial therapy selected according to the presumed microbial spectrum and clinical presentation. In addition, anti-inflammatory, detoxification, and immunomodulatory agents are commonly used.

Surgical sanitation of the infectious focus significantly enhances the effectiveness of pharmacological treatment by reducing microbial load and improving drug penetration into the affected tissues. Thus, surgical dentistry serves as the central component of comprehensive management of odontogenic infections.

Conclusion. Surgical dentistry is an integral component of the comprehensive treatment of odontogenic infections of the maxillofacial region. Timely and adequate surgical intervention allows for the elimination of the primary infectious focus, prevention of disease progression, and reduction in the risk of severe complications.

A comprehensive approach that combines modern surgical techniques with pharmacological therapy constitutes the basis for successful treatment and rehabilitation of patients with odontogenic infections.

References

1. Agapov V.S., Robustova T.G. Surgical Dentistry. Moscow: GEOTAR-Media; 2021.
2. Timofeev A.A. Odontogenic Inflammatory Diseases of the Maxillofacial Region. Kyiv; 2020.
3. Peterson L.J., Ellis E., Hupp J.R., Tucker M.R. Contemporary Oral and Maxillofacial Surgery. St. Louis: Elsevier; 2022.
4. Flynn T.R. Principles and surgical management of head and neck infections. Oral and Maxillofacial Surgery Clinics of North America. 2019;31(1):1–15.
5. Brook I. Microbiology and management of odontogenic infections. Oral and Maxillofacial Surgery Clinics of North America. 2020;32(3):459–468.
6. Nazarova N. S., Xatamova M. A. Shukurov SH.SH., BIOCHEMICAL CHANGES OF CHRONIC GENERALIZED PERIODONTITIS IN CHRONIC VIRAL HEPATITIS B, C AND MIXED INFECTIONS. JOURNAL OF ORAL MEDICINE AND CRANIOFACIAL RESEARCH, Vol.4 issue 3(2023), 49-52.



7. Xotamova M.A., Nazarova N.SH., Bahriddinova M.R., CLINICAL MEASURES AND OCCUPATIONAL HYGIENE IN THE TREATMENT OF PERIODONTAL DISEASES AND DISCUSSION OF THE EFFECTIVENESS OF PREVENTIVE MEASURES: Journal of Biomedicine and practice, 2024. – No. 6. – P.344-352.
8. Nazarova N. S., Xatamova M. A. EVALUATION OF THE EFFECTIVENESS OF ORGANIZATIONAL AND DENTAL MEASURES FOR THE PREVENTION OF DENTAL PERIODONTAL DISEASES AMONG WORKERS IN THE PRODUCTION OF METAL STRUCTURES OF METAL PROCESSING ENTERPRISES // "Central Asian Journal of Medicine" – 2024. – no. 2. – P. 39-43.
9. Rizaev, Z. A., Abdunosirovich, R. R., & Sharipovna, N. N. (2020). Ways to improve the organization of dental services for chemical industry workers. The American journal of medical sciences and pharmaceutical research, 2(12), 35-39.
10. Rizaev, J. A., Khaidarov, N. K., & Abdullaev, S. Y. (2021). Current approach to the diagnosis and treatment of glossalgia(literature review). World Bulletin of Public Health, 4, 96-98.
11. Nazarova, N. Sh., Ruzimuradova, Z. Sh., Clinical and pathogenetic aspects of dental and periodontal hard tissue diseases in patients with thyroid dysfunction // Journal of Dentistry and Craniofacial Research. - 2022. - Vol. 3. - No. 3
12. Nazarova, N. SH., Ruzimuradova, Z. SH., Morphological and functional factors of periodontal and hard tissue diseases // The American Journal of Medical Sciences and Pharmaceutical Research - 2022. - Vol. 4. - No. 09. - p. 27-34.
13. Nazarova N. Sh., Ruzimurodova Z. Sh., Etiological and pathogenetic factors of periodontal diseases in patients with hypothyroidism // Journal of Medicine and Innovations 2022. - Vol. 4. - No. 8. - Pp. 436-444.
14. Nazarova N. Sh., Ruzimurodova Z. Sh. Clinical and functional aspects of periodontal and dental hard tissue diseases in patients with hypothyroidism// Preventive Medicine and Health. - 2022. - Vol. 1. - No. 1. - Pp. 83-91
15. Ruzimurodova Z. Sh. Clinical and pathogenetic aspects of dental and periodontal diseases in patients with thyroid dysfunction// Journal of Achievements of Modern Education. - 2023. - Vol.7. - No. 7. - Pp. 107-112

