INTERNATIONAL MULTIDISCIPLINARY JOURNAL FOR RESEARCH & DEVELOPMENT
SJIF 2019: 5.222 2020: 5.552 2021: 5.637 2022:5.479 2023:6.563 2024: 7,805
eISSN :2394-6334 https://www.ijmrd.in/index.php/imjrd Volume 12, issue 05 (2025)

IMPROVING THE TREATMENT OF ORAL DECUBITUS ULCERS

Kamilov Haydar Pazilovich,
Daminova Nargiza Ravshanovna,
Kholmuratov Shokhjakhon Mirzokhid ugli
Tashkent State Dental Institute, Tashkent, Uzbekistan

Abstract: An oral decubitus ulcer is a chronic lesion of the mucous membrane that occurs as a result of constant traumatic impact. The main causes include sharp tooth edges, improperly placed fillings, and orthodontic appliances. Patients typically experience significant discomfort, including pain during eating and speaking. Clinically, the ulcer is characterized by irregular borders and a grayish coating. Without timely treatment, secondary infection may develop, and in rare cases, malignant transformation of the ulcerative defect is possible (Strelkov N.N., Volkova V.V., Shaytaylo M.K., Abarkina T.N., 2019).
Keywords: decubitus ulcer, oral mucosa, traumatic injury, orthodontic appliances, dental prosthesis, tissue regeneration, secondary infection, malignancy, pharmacological therapy, dental prevention, innovative materials, oral treatment.

СОВЕРШЕНСТВОВАНИЕ ЛЕЧЕНИЯ ДЕКУБИТАЛЬНОЙ ЯЗВЫ ПОЛОСТИ РТА

Аннотация: Декубитальная язва полости рта представляет собой хроническое поражение слизистой оболочки, возникающее вследствие постоянного травмирующего воздействия. Основными причинами являются острые края зубов, неправильно установленные пломбы и ортодонтические конструкции. Пациенты испытывают значительный дискомфорт, выражающийся в болевых ощущениях при приеме пищи и разговоре. Внешне язва характеризуется неровными краями и покрыта серым налетом. Без своевременного лечения возможно развитие вторичной инфекции и малигнизация язвенного дефекта(Стрелков Н.Н., , Волкова В.В., Шатайло М.К., Абаркина Т.Н.2019).
Ключевые слова: декубитальная язва, слизистая оболочка полости рта, травматическое поражение, ортодонтические конструкции, зубной протез, регенерация тканей, вторичная инфекция, малигнизация, медикаментозная терапия, профилактика в стоматологии, инновационные материалы, стоматологическое лечение.

OG‘IZ BO‘SHLIG‘I DEKUBITAL YARALARINI DAVOLASHNI TAKOMILLASHTIRISH

Annotatsiya: Og'iz bo'shlig'idagi dekubital yara — bu shilliq qavatning surunkali shikastlanishi bo‘lib, u doimiy travmatik ta’sir natijasida yuzaga keladi. Bunday yaralarning asosiy sabablari — tishlarning o‘tkir chetlari, noto‘g‘ri o‘rnatilgan plombalar va ortodontik konstruksiyalardir. Bemorlar ovqatlanish yoki gaplashish paytida kuchli og‘riq, noqulaylik va kuyish hissini boshdan kechiradilar. Yaralar odatda notekis chetli bo‘ladi va usti kulrang qoplam bilan qoplangan. Agar o‘z vaqtida davolash choralari ko‘rilmasa, ikkilamchi infeksiya rivojlanishi va o’sma (malignizatsiya) xavfi yuzaga kelishi mumkin (Strelkov N.N., Volkova V.V., Shaytaylo M.K., Abarkina T.N., 2019).
Kalit so‘zlar: dekubital yara, og'iz bo‘shlig‘i shilliq qavati, travmatik shikastlanish, ortodontik apparatlar, tish protezi, to‘qima regeneratsiyasi, ikkilamchi infeksiya, yaramalik, dori-darmon terapiyasi, stomatologiyada profilaktika, innovatsion materiallar, stomatologik davolash.

Introduction

A decubital ulcer of the oral cavity is a localized lesion of the mucous membrane that results from prolonged mechanical pressure or friction. Such lesions are most commonly observed in patients with orthodontic or prosthodontic appliances, particularly when these devices are defective or poorly fitted. If left untreated, these ulcers may develop into chronic inflammatory foci and, in some cases, into precancerous conditions.

Clinically, decubital ulcers are associated with pain, burning sensations, swelling of surrounding tissues, difficulty in eating, and an overall decline in the patient's quality of life. Their development is typically due to prolonged exposure to traumatic factors, combined with a reduced regenerative capacity of the oral mucosa. Additional predisposing factors may include systemic diseases (e.g., diabetes mellitus), smoking, poor oral hygiene, and weakened immunity.

Modern dentistry offers a wide range of means and methods for treating decubital ulcers, including antiseptics, anti-inflammatory and analgesic drugs, as well as innovative regenerative technologies and biomaterials. However, successful treatment is impossible without the elimination of the primary traumatic factor and an individualized approach to each patient.

Aim of the study – To analyze modern approaches to the treatment of oral decubital ulcers with the goal of improving therapy effectiveness, reducing healing time, and preventing recurrence.

Objectives of the Study

To analyze domestic and international literature on the etiology, pathogenesis, and classification of facultative precancerous diseases of the oral cavity.

To examine the clinical features of the most common facultative precancerous conditions such as leukoplakia, oral lichen planus, and chronic hyperplastic candidiasis.

To assess the effectiveness of current treatment methods, including pharmacological, local, and combination therapies.

To determine the role of prevention, elimination of triggering factors, and an individualized approach in preventing malignant transformation.

To formulate recommendations for improving therapeutic strategies for these conditions.

Morphological and Clinical Features of Oral Decubital Ulcers

The oral mucosa plays a crucial role in defending the body against external threats and performs protective, sensory, and immune functions. However, prolonged mechanical impact—especially from ill-fitted prosthetic or orthodontic devices—can lead to localized trauma and the development of decubital ulcers. These ulcers represent chronic wounds that often do not heal unless the traumatic factor is removed.

Morphologically, decubital ulcers are characterized by impaired epithelialization, necrotic tissue presence, and inflammatory changes in the surrounding area. In the early stages, an ulcer may appear as an erosion with irregular edges and a grayish coating. As the condition progresses, the lesions become deeper and more inflamed. If not treated in time, secondary infection and malignant transformation may occur, necessitating a comprehensive diagnostic and therapeutic approach.

Clinically, patients often report pain, especially while eating or speaking, burning sensations, and oral dryness. These symptoms intensify with mechanical irritation from teeth, dentures, or other prosthetic components. Ulcers may range in appearance from small erosions to large, deep lesions with significant inflammation and a grayish film.

Effective treatment and prevention require the removal of traumatic factors (e.g., adjustment of improperly fitted prosthetics) and the application of modern pharmacological therapies aimed at

accelerating healing and preventing infection. An individualized approach is crucial, taking into account each patient's clinical background and risk of complications.

Modern Methods for the Treatment of Oral Decubital Ulcers

Modern strategies for treating oral decubital ulcers rely on a comprehensive approach that includes eliminating the traumatic factor, applying advanced technologies for treatment and prevention, and regular monitoring of the mucosal condition. The main treatment methods include pharmacological therapy, surgical intervention, and innovative modalities such as laser therapy, cryodestruction, and photodynamic therapy.

Pharmacological therapy is used in cases of minor mucosal damage without marked dysplasia. Key agents include antiseptics, antibiotics, and anti-inflammatory medications to eliminate infection and promote tissue healing. Agents that enhance mucosal regeneration—such as ointments and gels containing panthenol, aloe vera, and vitamin E—play an important role.

Surgical methods are used for deep ulcers that do not respond to pharmacological treatment. Laser therapy (CO_2, erbium, and diode lasers) is commonly employed for painless and bloodless removal of affected tissue, aiding in healing and minimizing the risk of re-trauma. Laser ablation also improves blood circulation and stimulates regeneration.

Cryodestruction involves using low temperatures to freeze and destroy damaged tissues. It is especially effective for chronic ulcers caused by prolonged trauma, such as from dentures. Cryotherapy helps reduce inflammation, stimulate healing, and lower the risk of secondary infection.

Photodynamic therapy (PDT) is a modern method combining the administration of a photosensitizer with subsequent irradiation at a specific wavelength. PDT is used to treat decubital ulcers and chronic necrotic lesions. It enhances tissue condition, activates the local immune response, and prevents possible malignancy.

New molecular approaches include drugs targeting pathways involved in malignancy. For instance, agents that suppress the FGF2/NF-κB pathway have been shown to reduce inflammation and the risk of malignant transformation in chronic mucosal injuries. These drugs promote ulcer prevention and tissue repair.

Regular monitoring is essential for treatment and prevention. Patients should undergo routine examinations including photographic documentation of mucosal changes and biopsies to assess the degree of dysplasia or malignancy. Classification systems such as the WHO 2021 scale are useful in risk assessment and treatment planning.

Innovative technologies such as artificial intelligence for diagnosis and monitoring, and mobile diagnostic systems, have made treatment more precise and timely. Future directions may include localized delivery of antitumor agents and combined methods—like laser and photodynamic therapy with local retinoid and cytostatic administration—to significantly improve outcomes.

Conclusion

Oral decubital ulcers require a multidisciplinary and individualized approach, including the elimination of traumatic factors, application of modern treatment methods, and consistent monitoring. Treatment effectiveness is enhanced by a personalized strategy and preventive measures, helping to avoid complications and improve patient quality of life.

References

1. Strelkov, N.N., Volkova, V.V., Shataylo, M.K., Abarkina, T.N. (2019). *Decubital ulcers of the oral cavity: pathogenesis, diagnostics, and modern treatment methods*. Sovremennaya Stomatologiya (Modern Dentistry), No. 2, pp. 35–39.

2. Gilligan, G., Piemonte, E., Lazos, J., Simancas, M.C. (2023). *Management of oral pressure ulcers: a multidisciplinary perspective*. Oral Diseases, 29(3), 467–473. https://doi.org/10.1111/odi.14055
3. Fedorova, N.S., Saleev, R.A. (2021). *Decubital ulcers in patients with dentures: causes and treatment approaches*. Rossiyskaya Stomatologicheskaya Praktika (Russian Dental Practice), No. 4, pp. 22–26.
4. Kamilov, Kh.P., Daminova, N.R. (2022). *Application of photodynamic therapy in the treatment of chronic oral ulcers*. Stomatology and Implantology of Uzbekistan, No. 1, pp. 17–21.
5. Neville, B.W., Damm, D.D., Allen, C.M., Chi, A.C. (2022). *Oral and Maxillofacial Pathology* (5th ed.). St. Louis: Elsevier. 912 p.
6. Nikitin, A.A., Orlova, E.I., Luneva, M.S. (2018). *Cryodestruction in the therapy of chronic ulcers of the oral mucosa*. Klinicheskaya Stomatologiya (Clinical Dentistry), No. 3, pp. 42–45.
7. Levit, A.Ya., Kulikov, V.A. (2020). *Effectiveness of laser therapy in the treatment of ulcerative lesions of the oral mucosa*. Stomatologiya (Dentistry), No. 6, pp. 50–54.
8. Wu, Y., Li, Z., Li, W., Zhang, Q. (2021). *Advances in treatment of oral mucosal ulcers using photodynamic and laser therapy*. Photodiagnosis and Photodynamic Therapy, 36, 102574. https://doi.org/10.1016/j.pdpdt.2021.102574
9. Glick, M. (Ed.). (2021). *Burket's Oral Medicine* (13th ed.). Shelton: People's Medical Publishing House. 1136 p.
10. Ivanova, S.V. (2022). *Use of aloe vera and dexpanthenol-based ointments in the comprehensive treatment of decubital ulcers in the oral cavity*. Medical Sciences and Health, No. 2, pp. 75–79.