МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ

М А Т Е Р І А Л И

106-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького колективу
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Матеріали підсумкової 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) – Чернівці: Медуніверситет, 2025. – 450 с. іл.

У збірнику представлені матеріали 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) зі стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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Material and methods. Patient O., 14 years old, came for orthodontic treatment. A complete orthodontic diagnosis was carried out with a full photographic protocol, analysis of the orthopantomogram and the manufacture of control and diagnostic models. The patient's teleroentgenogram was evaluated and analyzed using an artificial intelligence algorithms program.

Cephalometric analysis was performed using the McNamara method. This method of automatic identification of markers on a teleradiograph was compared with the determining cephalometric data classical manual method. After the analysis, the patient was diagnosed with and a plan for further treatment was drawn up.

Results. We compared the classical method of analyzing teleradiograph data with a modern method using artificial intelligence algorithms, based on this clinical case. In contrast to the manual assessment method, which requires a lot of time to determine the position of each landmark, the automatic identification demonstrated high accuracy and performed a quick calculation of cephalometric data. At the same time, this method still requires the orthodontist to additionally check the position of each landmark after automatic identification; errors in landmark identification itself are still a significant source of inaccuracy in the analysis.

Conclusions. Therefore, this method is convenient, fast, high-quality, and time-efficient.

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PREVALENCE AND INTENSITY OF ORAL MUCOSAL DISEASES IN ORTHODONTIC PATIENTS

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Introduction. The use of fixed orthodontic appliances for the treatment of dentoalveolar anomalies in young patients can lead to trauma of the mucous membrane of the cheeks and lips (Pasaoglu B.A., Buyukbasaran E., 2024; Abdollahzadeh B.T. et al., 2024). However, there are contradictory data on the effect of orthodontic treatment on the development of oral mucosal diseases (OMD) of non-traumatic origin. There are also few studies aimed at determining the risk factors for the development of oral mucosal diseases in these patients, as well as an effective algorithm for their prevention and treatment, which makes this problem relevant.

The aim of the study. To study the peculiarities of the distribution, diagnostic structure and clinical course of OMD in young patients undergoing orthodontic treatment.

Material and methods. We examined 26 young patients (18-35 years old) undergoing orthodontic treatment with fixed multibraces who were included in the study group. The control group consisted of 12 practically healthy individuals of the corresponding age. All patients were studied for the prevalence (in %) and intensity of OMD, and questionnaires were administered regarding risk factors for the development of these diseases. Statistical processing of the material was performed using Microsoft Excel (USA).

Results. In the examined patients, the diagnosis of traumatic stomatitis was most often made (in 73.1 % of the main group), especially in the first month of using multibraces, which was by 8.8 % higher than in the control group. The localization of traumatic erosions and ulcers was mostly on the cheeks, less often in the area of the lower and/or upper lip. The majority of patients in the survey associated the injury with the design features of orthodontic appliances. The literature also emphasizes the vulnerability of the above-mentioned areas of the oral mucosa when eating, talking, performing hygiene procedures, etc. (Chang J., Li X., 2024).

Herpetic stomatitis was the second most common condition (in 7.6 % of people). The least common were leukoplakia of the cheeks – in one patient of the main group (3.8 %) and recurrent aphthous stomatitis (in 3.8 %). The results of the questionnaire showed that the most significant risk factors for the development of non-traumatic OMD were tobacco smoking, use of a hard toothbrush, and consumption of hot food and drinks.

Patients in the main group were prescribed to rinse the mouth with a 0.1% solution of hexetidine, which has a complex antibacterial, antifungal and anti-inflammatory effect, twice a day for 30 seconds to treat OMD. To accelerate erosion healing and reduce pain, it was recommended to

apply a keratoplastic agent in the form of a gel containing deproteinized calf blood hemoderivative and polydocanol topically. To prevent new OMD and progression of existing ones, it was recommended to apply orthodontic wax to the sharp parts of the bracket system and those areas that are in direct contact with the injured oral mucosa.

Conclusion. A high prevalence of OMD in young orthodontic patients was found – in 87.4 %. Traumatic stomatitis prevailed in the structure of OMD – in 73.1 %. The most significant risk factors for the development of OMD are: smoking, the use of a hard toothbrush, hot food and drink temperature.

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APPLICATION OF ELECTRIC WELDING TECHNIQUE DURING CYSTECTOMY IN PATIENTS WITH ODONTOGENIC JAW CYSTS

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Introduction. Modern medical advances make it possible to use fundamentally new techniques to improve the results of treatment and subsequent rehabilitation of patients with odontogenic cysts of the jaws. Electric welding of human body tissues is a modern area of surgery, but it has not yet been widely used in surgical dentistry.

The aim of the study. To verify the effectiveness of treatment of odontogenic cysts of the jaws using the method of electric welding of tissues.

Material and methods. The clinical and laboratory study was conducted on 87 patients, aged 20 to 51 years, whose cysts were diagnosed during the Rtg study. The studied patients, depending on gender, were represented as follows: 47.13% of men and 52.87% of women. The most numerous group of examined patients was made up of patients aged 31-40 years: 41.46% and 47.83% of men and women, respectively.

According to conventional clinical and radiological studies, it was found that in 24 patients (27.59%) cysts were localized in the lower jaw and in 63 patients (72.41%) - in the upper jaw.

Depending on the size and location of the cyst, the patient's general condition, the doctor's qualifications and technical equipment, Parch II cystectomy was performed under local or general anesthesia in an outpatient clinic or hospital.

Results. The analysis of the frequency of clinical symptoms when using different methods of wound edge approximation showed that when using electric welding technologies, clinical symptoms after cystectomy (pain, hyperemia, edema, facial asymmetry, tooth mobility in the cystectomy area, suture divergence) did not objectify on the 14th day of observation vs 5,26% of patients with mild hyperemia, pain, swelling and 15.79% of patients with tooth mobility in the cystectomy area when suturing the postoperative wound with Vicryl suture material and in 8,0% of patients with pain, swelling, hyperemia of the mucous membrane of the oral cavity and 4.0% of patients with tooth mobility in the cystectomy area when approximating the wound edges using laser technology.

It was proved that the approximation of postoperative mucous membrane of the oral cavity wounds using electric welding in the surgical treatment of odontogenic cysts contributed to a decrease in inflammatory and immunological reactions in the oral fluid of the subjects, which is confirmed by a decrease in the levels of IL-1 β, $p - p1<0.05$, $p2<0.05$, TNF - α, $p>0.05$, $p1 - p2<0.01$, on day 7 of observation; leukocyte count, $p - p1>0.05$, $p2>0.05$, IL - 8, $p>0.05$, $p1 - p2<0.01$, NO synthase activity, $p - p2>0.05$, on day 14 of the study; IL concentrations - 6, $p>0.05$, $p1 - p2<0.01$, MMP activity - 9, $p - p2<0.05$ on day 30 after treatment and ESR parameters on day 7 of observations, $p - p2>0.05$.

Conclusions. The use of the proposed method of approximation of the edges of postoperative wounds using electric welding in the surgical treatment of odontogenic cysts minimizes surgical trauma, simplifies and reduces the duration of the operation by more than 2.0 times, prevents the development of complications and contributes to less severe clinical symptoms