## МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»



## МАТЕРІАЛИ

105-ї підсумкової науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ присвяченої 80-річчю БДМУ 05, 07, 12 лютого 2024 року

Конференція внесена до Реєстру заходів безперервного професійного розвитку, які проводитимуться у 2024 році № 3700679

УДК 001:378.12(477.85)

ББК 72:74.58

M 34

Матеріали підсумкової 105-ї науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) – Чернівці: Медуніверситет, 2024. – 477 с. іл.

ББК 72:74.58

У збірнику представлені матеріали 105-ї підсумкової науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) із стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

Загальна редакція: професор Геруш І.В., професорка Грицюк М.І., професор Безрук В.В.

Наукові рецензенти: професор Братенко М.К. професор Булик Р.Є. професор Гринчук Ф.В. професор Давиденко І.С. професор Дейнека С.Є. професорка Денисенко О.І. професор Заморський I.I. професорка Колоскова О.К. професор Коновчук В.М. професор Пенішкевич Я.І. професорка Хухліна О.С. професор Слободян О.М. професорка Ткачук С.С. професорка Тодоріко Л.Д. професор Юзько О.М. професорка Годованець О.І.

ISBN 978-617-519-077-7

<sup>©</sup> Буковинський державний медичний університет, 2024

The activity of the enzyme urease in patients of the main group (A) and comparison group (B) after treatment was significantly reduced ( $p_{A1-A2} < 0.001$ ,  $p_{B1-B2} < 0.001$ ), but only in the main group it reached the level in the control group (C) ( $p_{A2-C} > 0.05$ ). The level of lysozyme after treatment was significantly increased in patients of both observation groups ( $p_{A1-A2} < 0.001$ ,  $p_{B1-B2} < 0.001$ ), and reached the level of lysozyme in patients of the control group (C) ( $p_{A2-C} > 0.05$ ,  $p_{B2-C} > 0.05$ ). The degree of oral dysbiosis in patients of the main group (A) was significantly reduced by 5.43 times ( $p_{A1-A2} < 0.001$ ), and its difference from the degree of dysbiosis in patients of the control group (C) is statistically insignificant ( $p_{A2-C} > 0.05$ ). The degree of oral dysbiosis in patients of the comparison group (B) was significantly reduced by 3.04 times ( $p_{B1-B2} < 0.001$ ), but still remained significantly different from oral dysbiosis in patients of the control group (C) ( $p_{B2-C} < 0.05$ ).

**Conclusion.** The proposed pharmacological composition DEPS is an effective antiseptic solution and can be used in the phase of maintenance therapy to improve the treatment and prevention of periodontal disease in workers of woodworking industry.

## Sorokhan M.M. METHOD OF MANUFACTURING A BRIDGE WITH MINIMALLY INVASIVE PREPARATION OF ABUTMENT TEETH

Department of Prosthetic Dentistry Bukovinian State Medical University

Introduction. Clinical durability of adhesive restorations is largely determined by the quality of marginal adaptation of orthopedic structures to hard tooth tissues. One of the factors that affect marginal adaptation is adhesive strength. To improve the mechanical fixation of bridges to the hard tissues of abutment teeth, various irregularities and roughness's (microretention points) formed on the metal surface during its processing in a sandblasting machine are used by applying frequent notches 0.2 mm deep, located at an angle of 30° to the crown axis, and perpendicular to the occlusal surface and intermediate part. However, all of the above methods require significant preparation of the vestibular surface of the tooth, because the retention points have convex outlines outward, so the layer of the facing mass must be of sufficient thickness to prevent the retention nodes from being visible.

**The aim of the study.** Therefore, the aim of our study was to develop a method of manufacturing a bridge with minimally invasive preparation of abutment teeth.

**Materials and methods.** To achieve this goal, 50 diagnostic plaster models of the upper and lower jaws with small defects in the dentition were cast. The models were studied in the articulator and parallelogram. The most convenient angles for creating additional retention grooves on the oral surface of the anterior teeth, their depth and number were worked out. The necessary instruments for the preparation of hard tooth tissues and their sequence of use were also selected. After successful laboratory tests, the method was transferred to the clinic. In the oral cavity of 45 patients, the Cerec Omnical intraoral specimen scanner or the MEGAparallel 8 intraoral parallelogram, Ø 30 mm, was used for preparation.

**Results.** Gentle preparation of the abutment teeth was performed by forming retention grooves on the oral surface with a depth of 1.0-2.0 mm and an area corresponding to the anatomical shape of the tooth with additional application of a sequential series of depressions in the area of retention grooves to a depth of 0.5-1.0 mm using an intraoral scanner or an intraoral parallelogram.

To create retentive points for the support platforms, a set of spherical diamond burs with a diameter of 2 and 3 mm was used, which was subsequently used to create a system of thin elongated channels for the adhesive prosthesis with cone-shaped burs with a grain size of  $100~\mu m$ . Diamond burs with a grit of 25-50 microns were used for preparation of the proximal or oral surfaces, and carbide burs were used for finishing the cavity margins and contouring the restoration. Carbide burs with 12 to 32 facets were used for grinding, and polishing heads, disks and strips were used for final processing.

After preparation of the abutment teeth, an impression of the dentition defect was taken with silicone material, a plaster model was cast, which was studied in a parallelogram, the boundaries of the occlusal onlays were outlined with a chemical pencil, and the model was prepared for duplication. After preparing the silicone duplicate, refractory models were cast, on which a wax reproduction of the adhesive structure was made according to the generally accepted method with the reflection of retentive elements. The wax composition was replaced with metal according to the generally accepted method, the cast metal frame was freed from the casting system and machined and sandblasted. Then, a ceramic artificial tooth was fabricated on the intermediate part of the frame, and Maxcem EliteTM double-retention cement was used to fix the structure.

**Conclusions.** The proposed method provides an increase in the strength and durability of bridges of adhesive fixation to the hard tissues of abutment teeth with a minimum thickness of the retention layer with a simultaneous increase in their aesthetic characteristics.

## Tkachyk S.V. TREATMENT OF FRACTURES OF THE ZYGOMATIC-ORBITAL COMPLEX USING EXTRA-ORAL REPOSITIONING-FIXING DEVICES

Department of Surgical Dentistry and Oral Surgery Bukovinian State Medical University

**Introduction.** Fractures of the zygomatic-orbital complex (ZOC) are one of the main causes of hospitalization into the maxillofacial department with fractures of bones of the middle facial area. Patients with this pathology constitute from 2,4% to 24% of the total number of in-patients. In recent decade, the number of victims and severity of injuries of the facial skeleton have increased.

**The aim of the study.** To increase the effectiveness of treatment of patients with fractures of the zygomatic-orbital complex by means of improvement of diagnostic methods and development of a new surgical method of reposition and fixation of bone fragments.

**Materials and methods.** Case histories, clinical, radiological, rheographic, electromyographic, electroodontodiagnostic and statistical methods.

**Results.** Late referral for specialized medical aid occurs rather often in clinical practice (within the period of more than 10 days). In most cases, the main reasons of late referral are untimely and inadequate diagnostics of this injury. Concomitant pathology from the side of the central nervous system sometimes prevents surgery in the early period after getting trauma.

With the aim to improve the quality of diagnostics of ZOC fractures, the development of additional objective methods of examination of this group of patients remains rather relevant. It will enable to perform objective monitoring of treatment and evaluate the results obtained.

Modern methods of treatment of ZOC fractures are divided into surgical, surgical-orthopedic and orthopedic. Nowadays, in the majority of cases surgical methods of reposition of bone fragments are recommended followed by their fixation by means of a bone wire suture or a bone plate with screws.

The main disadvantages of the surgical fixation are extensive detachment of the soft tissues and periosteum in the area of fracture. It leads to additional injury and causes the necessity to perform additional surgery in order to remove fixators. In case an injury happened long ago, one-step/one-moment reposition of bone fragments is not always possible.

Due to this fact, the use of combined (surgical-orthopedic) methods of treatment is relevant. Their advantages may include extra-focal nature of fixation, simple installation and absence of the necessity of repeated hospitalization to remove fixators. Nevertheless, the design of most such devices is quite piled up and uncomfortable, and their constituent parts are complicated to make. Choosing a support point for repositioning is not always acceptable.

**Conclusions.** Improvement of extra-oral repositioning-fixing devices, indications and contraindications for the use of surgical-orthopedic method of treatment of ZOC fractures depending on the character of injury and the term of its limitation will enable to improve the quality of medical aid and make the period of social rehabilitation shorter.