



courage. Medical staff try to set up at least some positive relationship with the child, and if it fails - no one makes the little patients open their mouth.

If a medical intervention is necessary or the medical situation is complicated, then there is an extreme measure – the child's dental treatment under general anesthesia. These are, of course, special cases or when there are very serious diagnoses and the above mentioned anesthesia cannot be performed in an ordinary private dental room. Though some countries have a great experience in performing such procedures, it is a completely new project for our dentists. But it allows us to solve the problems of children's teeth in one visit with the duration of treatment no longer than 2-3 hours. But who are the candidates for dental treatment under general anesthesia?

First of all they are the children with special needs. Children who suffer from specific diseases (different types of syndromes, neurological disorders, autism, etc.) require special dental care, which, in most cases, can not be provided without general anesthesia, classic intervention in the dental room can damage the health of the child or may be impossible without the cooperation with the patient.

The patients are very small kids who need large amount of dental treatment. The onset of dental diseases can occur in early childhood the child then requires complex intervention, rehabilitation of a large number of teeth from the age of 2-3 years. At this age, children tend to have very low degree of contact or cooperation with the doctor, and therefore there is a high risk of being injured during the classical dental surgery. In this situation, after a full dental assessment (clinical and radiological) of the patient, the practitioner may recommend dental treatment under general anesthesia, surgery, which includes resolution of all dental problems of the child in one visit (treatment), the length of which does not exceed 3 hours.

At the end of dental treatment under general anesthesia the patient is fully rehabilitated, but in terms of dental results - they are absolutely wonderful. This procedure includes a number of classic treatments performed in the dental room, and the child's stress is minimized.

The benefits of dental treatment under general anesthesia can only be discussed in the context in which it is carried out under conditions of maximum safety for children patients. We should keep in mind that the intervention must be carried out in the hospital, equipped with all the necessary equipment in operating rooms, which is able to manage this kind of treatment in all phases of anesthesia.

Therefore, the dental treatment of children under general anesthesia in the dental room / dental clinic is completely inappropriate, this kind of intervention can only be performed safely in all respects in a hospital. It is where the dental treatment under general anesthesia is conducted and supervised by a team of anesthesiologists who specialize in treating children, and, if necessary, there are pediatrician of related sciences, who, together with dentists, provide the prerequisites and conditions for dental treatment in order to obtain good results which are unattainable with traditional methods of treatment .

Kilmukhametova Ju., Tokar O., Tabacniuk N.

EXPERIMENTAL USE OF THE ANTIOXIDANT PREPARATION COMPOSITION IN LABORATORY ANIMALS

*Department of Therapeutic Dentistry
Higher State Educational Establishment of Ukraine
"Bukovinian State Medical University"*

Treatment of periodontal diseases in patients with pathology of the urinary system involves both general therapy directed mainly on the main etiologic factors of the disease, and the immediate elimination of pathological manifestations in the oral cavity, and has more pathogenic character. Therefore, the treatment involves a lot of drugs of different pharmacological nature. This study is aimed to the treatment of periodontal diseases in patients with concomitant urinary tract pathology.

The drugs with a local effect are most often used in the form of successive and interchangeable rinses and applications, that results in patients being forced to stay in the dentist's chair for a long period of time, or using the preparations on their own at home, following a strict sequence and exposure. That is why in this situation such convenient forms of drugs are preferred as ointments and solutions.

During the research experiments were conducted on laboratory animals. An experimental model of ulcerous-necrotic gingivitis was caused in animals by chemical burn. To conduct it, under the influence of Chloroform, after washing the rabbits mouth with a dry cotton swab, the mucous membrane of the gum of maxilla on both sides was rubbed with a solution of 4% Sodium Hydroxide from eight to nine minutes. A day later, severe ulcerous-necrotic gingivitis developed in the damaged area.

Successively, in the form of periodontal bandages, a composition of the preparations of Biocarnozini, Zinc Oxide and Chlorhexidine Bigluconate was used. Those preparations with the dose of approximately 20 mg were applied to the damaged area of the gums twice a day, two hours after feeding the animals. To fix the preparations on the surface of the wound warmed paraffin was used.

The nature of the course of experimental ulcerous-necrotic gingivitis was studied, the key stages of healing were chosen for the observation term – the third day – the peak of the inflammatory process; the fifth day – completion of necrolysis on the ulcerous surface; the seventh day – the stage of intensive regenerative processes; the tenth day is the completion of the pathological process with epithelization of the damaged area. In the visual evaluation of the damaged area of the mucous membrane of the maxillar process the following indicators were considered: timing of



elimination of perifocal inflammation, hyperemia, infiltration of the edges of damage, timing of purification from necrotic tissues, the beginning of epithelization and its completion.

Analyzing the visual observation data obtained in evaluating changes in the area of ulcerous damage of the mucous membrane of the alveolar process a marked difference in the dynamics of the pathological process between the animals of the research and control groups was found. The most noticeable differences relate to the initial phase – the phase of the inflammatory process.

Thus, based on the obtained results, it can be concluded that anti-oxidant effect of antibacterial and protective agents decreases the damage of tissue and cell structures in the damaged area. As a result, healing wound surfaces occurred two days earlier in the experimental group than that of the control.

Mytchenok M.P.

THE STATE OF PHYSICAL-CHEMICAL PROPERTIES OF THE ORAL FLUID IN PATIENTS SUFFERED FROM DIABETES MELLITUS

*Department of Pediatric Dentistry
Higher State Educational Establishment of Ukraine
«Bukovinian State Medical University»*

Diabetes mellitus is one of the leading medical-social issues. Millions of people in all the countries of the world suffer from this disease. It occupies the third position in the world after cardiovascular and oncological diseases. The first signs of diabetes are known to be changes in the oral cavity being of a considerable diagnostic value. Diabetic patients in comparison with individuals without somatic pathology manifest dry and pastose content of the oral cavity mucus and hyposalivation resulting in increased dental deposits, increased general fibrinolytic activity of the oral fluid, and intensified gingival bleeding.

The objective of the study was investigation of physical-chemical properties of the oral fluid in patients suffering from type 2 diabetes mellitus requiring surgical sanitization of the oral cavity.

41 patients afflicted with type 2 diabetes mellitus aged from 38 to 69 were examined. The control group included 25 somatically healthy individuals of the same age. To determine secretory activity of the large and small salivary glands the oral fluid was taken in the morning on empty stomach during 5 minutes without stimulation, and 5 minutes after stimulation before doing medical indications and manipulations. To stimulate excretion of the oral fluid the oral cavity was rinsed with 20 ml of 0,5% citric acid solution during 5 seconds. Salivation rate (ml/min), specific gravity (kg/m^3), pH (relative units) and viscosity (cP) were examined.

Salivation rate of non-stimulated oral fluid at the beginning of surgical sanitization of the oral cavity reduced in 2,1 times and was $0,31 \pm 0,01$ ml/min, and stimulated one – in 1,8 times ($0,48 \pm 0,02$ ml/min) as compared to the indices of the control group ($0,66 \pm 0,02$ ml/min in non-stimulated fluid and $0,84 \pm 0,04$ ml/min after its stimulation). At the same time, specific gravity of non-stimulated and stimulated oral fluid increased inconsiderably as compared to practically healthy individuals and was $1,029 \pm 0,04$ kg/m^3 without stimulation and $1,020 \pm 0,05$ kg/m^3 after stimulation. As compared to the control group a tendency to reduced pH of non-stimulated oral fluid in 1,5 times was determined ($4,61 \pm 0,22$ relative units) and stimulated one – in 1,3 times ($5,82 \pm 0,24$ relative units). Viscosity of the non-stimulated oral fluid in patients increased in 2,4 times ($5,83 \pm 0,97$ cP) and stimulated one – in 1,9 times ($3,62 \pm 0,41$ cP) as compared to the indices of the control group ($2,41 \pm 0,19$ cP without stimulation and $1,93 \pm 0,09$ cP after stimulation). On the moment of sanitization completion in patients of the main group there were no reliable changes found in the rate of salivation, specific gravity, pH and viscosity of non-stimulated and stimulated oral fluid as compared to the beginning of sanitization.

Therefore, type 2 diabetes mellitus is associated with reduced rate of salivation both before and after stimulation, decreased concentration of hydrogen ions, and increased viscosity of the oral fluid with unchanged indices of specific gravity, which undoubtedly influences upon the quality of healing the cavity after tooth extraction and can result in complications in the form of acute inflammatory process. Lack of a positive dynamics in laboratory findings of patients suffering from type 2 diabetes mellitus after surgical sanitization of the oral cavity promotes elaboration of preventive and therapeutic measures directed to primary elimination or correction of the determined disorders.

Бамбуляк А.В., Горницький Я.В.

МІНЛИВІСТЬ ЛОБОВИХ ПАЗУХ В ОНТОГЕНЕЗІ ЛЮДИНИ

*Кафедра хірургічної стоматології та щелепно-лицевої хірургії
Вищий державний навчальний заклад України
«Буквинський державний медичний університет»*

Сучасна клініка вимагає більш точних даних щодо індивідуальної анатомічної мінливості у постнатальному періоді розвитку. З віком міняються не тільки розміри, форма, положення органів, але й межі їх індивідуальних коливань. Таким чином, актуальність даного дослідження зумовлена необхідністю комплексного вивчення становлення та топографо-анатомічних взаємовідношень стінок лобових пазух із суміжними структурами в онтогенезі людини, з'ясування анатомічних змін, вікової індивідуальної мінливості, прогресивних та регресивних реформацій пазух впродовж життя людини для морфологічного обґрунтування окремих нових методів хірургічного втручання в оториноларингології в різні вікові періоди.

Метою нашого дослідження було встановити мінливість лобових пазух в онтогенезі людини.