



Уілка групи порівняння мали нормальний розподіл. Статистичну значимість відмінностей оцінювали за t-критерієм Стьюдента для незалежних виборок. Дані представлені у вигляді середніх арифметичних та стандартного відхилення. Усі експериментальні дослідження та евтаназія тварин проводилися з дотриманням міжнародних принципів Європейської конвенції про захист хребетних тварин, які використовуються для експериментальних та інших наукових цілей (Страсбург, 1985).

У печинці щурів без ЦД 20-хвилинна каротидна ішемія з одногодинною реперфузією не впливає на показники фібринолітичної активності, а в селезінці – знижує всі види фібринолітичної активності, а також пригнічує лізис низькомолекулярних білків в обох досліджених органах. На 12-ту добу постішемичного періоду в обох органах тварин без діабету посилюється сумарна та неферментативна активність, лізис низько-, високомолекулярних білків та колагену. Також встановлено, що ЦД в обох органах в пізньому терміні спостереження усуває реакцію показників фібринолітичної активності, притаманну контрольним тваринам, обмежує реакцію протеолітичних систем на 12-ту добу змінами одного показника (порівняно з трьома в контрольних щурів) та спричиняє реверсію змін у ранньому постішемичному періоді.

СЕКЦІЯ 13 ОСНОВНІ НАПРЯМКИ РОЗВИТКУ СТОМАТОЛОГІЇ

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PECULIARITIES OF MRNA TLR-2, TLR-4 EXPRESSION OF THE ORAL CAVITY EPITHELIUM IN CHILDREN UNDER CONDITIONS OF CHRONIC CATARRHAL GINGIVITIS AGAINST DIABETES MELLITUS

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Epithelium of the oral cavity and TLR containing in them are under the effect of changes both in dental and general somatic pathology. TLR availability in the external membrane of neutrophils, macrophages, keratocytes was found to be a starting point in triggering inflammation in the periodontal tissues ensuring molecular reception of a pathogen with further involvement of important components in the inherited immunity. These effectors possess phagocytic and killer activities, ensure a number of signals activating and directing antigen-specific response by the cells of the adaptive immune system.

The aim of the study was to study mRNA TLR-2, TLR-4 in the epithelium of the oral cavity in children under conditions of chronic catarrhal gingivitis against diabetes mellitus considering metabolic disorders available.

We examined 30 children under conditions of chronic catarrhal gingivitis against diabetes mellitus by type I diabetes mellitus (I group), 30 somatically healthy children under conditions of chronic catarrhal gingivitis (II group) and 30 absolutely healthy children (III group). To analyze gene expression the method of polymerase chain reaction was applied with a reverse transcription in the regime of real time (RT-RRT). The object for molecular-genetic examinations by means of RT-RRT method was the buccal epithelium.

In children afflicted by diabetes mellitus the content of mRNA TLR-2 (90.0755) is in 5.5 times higher as compared to somatically healthy children under conditions of CCG – 15.1505. Expression of mRNA TLR-4 in children of I group increased 6 times as compared to the children from II group. Such results are evidenced by certain literary data and are indicative of an infectious genesis of inflammatory process in the periodontal tissues. Expression of mRNA TLR-2 in a considerable number of children of both experimental groups was high with a tendency to increase depending on the degree of severity of CCG in children afflicted by diabetes mellitus. Under conditions of mild degree of CCG in children with comorbid pathology the index was 44.1761, in somatically healthy children – 14.3251. Children with moderate degree of CCG severity were characterized by the following data: 112.9692 – in I group and 18.7071 – in II group. The highest data were found in children against the ground of comorbid somatic pathology under conditions of severe degree of CCG (113.3434). The level of mRNA expression of TLR-4 (Fig. 2) in children with the signs of mild degree of CCG against the ground of somatic pathology was 26.0951, and among somatically healthy children it was a little lower – 9.8618. Under conditions of moderate and severe degrees of CCG expression of mRNA TLR-4 increased in children with comorbid pathology as compared to somatically healthy children, 99.7132 and 103.5418 and 19.2791 and 19.8159 respectively.

The conducted molecular-genetic study of a relative level of mRNA TLR-2 and TLR-4 in the epithelium of the oral cavity was indicative of the fact that in children against diabetes mellitus relative levels of mRNA TLR-2, TLR-4 are considerably higher.

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GENERAL ANESTHESIA IN PEDIATRIC DENTAL PRACTICE

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For many children visiting a dentist and treating their teeth is quite a challenge. Fortunately, the equipment now is completely different from that which there used to be, even in public clinics. The importance of the child's first visit to the dentist is clear to doctors as well - in some dental clinics children receive small gifts and diplomas for



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 .

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EXPERIMENTAL USE OF THE ANTIOXIDANT PREPARATION COMPOSITION IN LABORATORY ANIMALS

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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