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**REASONABILITY OF GENERAL ANESTHESIA IN PEDIATRIC DENTAL PRACTICE**

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For many children visiting a dentist and treating their teeth is quite a challenge. This "antipathy" has existed from their childhood. A terrible sound, an uncomfortable chair, dental instruments as a tool of "torture" – all this can not pass without leaving a trace in a child's mind.

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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**CHARACTERISTICS OF MICROBIOCENOSIS OF THE ORAL CAVITY IN CHILDREN UNDER  
CONDITIONS OF CHRONIC CATARRHAL GINGIVITIS AGAINST DIABETES MELLITUS**

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Microflora of the oral cavity is presented by a number of microorganisms, a stable group of aerobes and anaerobes in particular. Imbalance in their system is an important factor promoting the development of inflammatory process in the periodontal tissues.

Therefore, the objective of the study is to investigate microbe spectrum of the oral cavity in children under conditions of chronic catarrhal gingivitis against diabetes mellitus.

We have performed microbiological examination of the oral cavity of 12-year old children (30 individuals) under conditions of chronic catarrhal gingivitis (CCG) against diabetes mellitus (DM) who were hospitalized at the Department of Endocrinology of the Regional Clinical Pediatric Hospital in Chernivtsi. The control group (30 somatically healthy children of the same age) was formed from the pupils of the secondary school № 22. The material examined was investigated by means of microscopic and bacteriological methods of examination. Swabs of the oral cavity were cultured on hard nutrient medium and the number of microbes was calculated by the indices of colony-formation units (CFU), the cultures were identified according to bacterial detector by A. Berjy [Hoult G., 1997].

As the result of the studies conducted the number of isolated strains belonging to *Streptococcus* in children of II group was twice as much than that of I group, and the interrelation of the cultures *Staphylococcus* and *Neisseria* was



practically similar. *Escherichia*, *Corynebacterium*, *Proteus*, *Pseudomonas* and *Candida* were isolated in the main group of children.

Therefore, in children with CCG against I type DM there was increased putrid gram-negative microflora and pathogenic fungi *Candida* found. In this respect the oral cavity should be sanitized with effective antiseptics with a wide spectrum of action.

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### **USE OF LINER MATERIALS CONTAINING CALCIUM CALCIMOL LC AND IONOSIT DURING TREATMENT OF DEEP CARIES**

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At all times healers, philosophers, doctors and scientists were trying to determine the cause of different diseases. Dental diseases didn't bypass their attention, and more specifically - caries. There are over 200 theories about the origin of the disease.

Dental caries is a pathological process that appears after the teething at which the demineralization and softening of hard tooth tissue is happening with subsequent formation of a defect in a form of a cavity. Dental caries is divided into initial, superficial, moderate and deep, depending on the lesion depth. This study concerns the use of liner materials for the treatment of deep caries.

It is the necessity to determine the effectiveness of IONOSIT and Calcimol LC in the treatment of acute deep caries. Calcimol LC - light curing, X-ray contrast liner material containing calcium hydroxide. IONOSIT - light curing, X-ray contrast compomer liner material containing calcium hydroxide.

The study involved 24 patients who have been diagnosed with acute deep caries. They were divided into three experimental groups. Patients of the first group, after preparation, were treated with the Calcimol LC, a dental paste, applied to the floor of cavities as a temporary filling, with the instruction of repeat visit in 2 weeks. Patients of the second group were treated using IONOSIT, a dental paste, and given the same instructions. The patients of the third group, which was the control one, after preparation were treated with glass ionomer cement Ketak Molar, applied to the floor of the cavity and filled with the light curing material Charizma.

In two weeks, the patients of the first group pointed out that the pain from the irritants was significant of less intense, and 2 patients said that it disappeared altogether. Probing of the cavity floor after liner removal was painful for 3 patients, and slightly painful, or even painless for the rest of them. Patients of the second group complained of minor pain from irritants, but much smaller than before the use of the paste. Probing of the cavity floor was painful for 3 patients, the rest - slightly painful, or painless. Two patients of the control group complained of slight pain from irritants, the rest patients didn't make any complaints.

The results of this study proved that both materials are effective in the treatment of acute deep caries. The complaints of the majority of patients reduced, or were absent at all. However, the relatively small group of patients and the lack of histological confirmation make it impossible to fully evaluate the effectiveness of treatment of acute deep caries with Calcimol LC and IONOSIT liner materials.

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### **EVALUATION RESTORATIONS OF CROWN PART OF FRONTAL GROUP OF TEETH BY CRITERIA USPHS (RYGE)**

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The problem with the emergence and prevalence of defects in the crown of the front teeth is vitally important in the clinic of therapeutic dentistry. A large number of carious and non-carious lesions of hard tissues of anterior teeth among the population of Ukraine cause the necessity of development of modern methods of treatment of this pathology. The question of choosing a material with optimum physical, chemical and optical properties which can be used for performing highly aesthetic restoration of the tooth and can satisfy all the requirements of the doctor and the patient is very relevant today.

Also, the objective evaluation of the quality of the restoration of the crown part of the tooth in the early and late periods of treatment is one of the unresolved questions today. In most cases in practice determining the need for replacement of restoration implements by a dentist by visual examination of the restorations using the dental mirror and probe, based on his own clinical experience. However, this method of quality evaluation of dental restorations doesn't have a sufficient level of accuracy and objectivity.

The purpose of our research was improving the quality of restorations of the destroyed crown part of the front teeth on the upper and lower jaw, using nanocomposite materials by analyzing the immediate and remote results of treatment.

To achieve the purpose of research there were definite such tasks as:

1. Choosing the best method of evaluating restorations of the crown part of the front teeth.