

RISK ANALYSIS OF DENTAL CARIES FOR CHILDREN'S POPULATION OF BORISOV

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Dentistry of childhood is one of the most complex clinical disciplines. Attention to it is due to a significant proportion of children among the population of our country, and the sphere of assistance to the children's population concerns the most promising part of society.

Keywords: caries, diseases of the oral cavity, complicated caries, installations of a seals, the child population.

Relevance. Dental caries is the most common human disease. Almost all adults and children in the world are affected by it. It is now generally accepted that the prevention of dental diseases contributes to the prevention a number of diseases of internal organs. The rate of intensity gain of caries is extremely necessary for a clear organization of planned sanitation of the oral cavity and dispensary dental care for children, as well as assessing the effectiveness of dental care [1; 2].

Purpose. Using quantitative methods of assessment to analyze the dynamics of indicators of caries morbidity among preschool and school-age children in Borisov.

Objects and methods of research. The subject of the study was information on cases of dental caries and the number of children, served by the Borisov Children's Dental Polyclinic, and also the results of a survey of parents of 90 preschool children for the use of easily digestible carbohydrates. The calculation of extensive and intensive indicators, the analysis of dynamic series by the method of equalizing the first-parabolic series, the calculation of the relative risk of dental caries for preschool children using digestible carbohydrates regularly, the comparative analysis of the indices in two sets for the reliability of differences were used in the work.

Results and its discussion. During the entire period of study, significant differences in the values of the incidence rates of caries in school-age children were noted in comparison with those in preschool children ($p > 0,05$). The analysis of the dynamic series of dental caries in the children's population of Borisov in the first-order parabola revealed a significant decrease in the index among children of school age ($A1 = -1,47\%$, $R2 = 0,88$); the tendency of the dynamic incidence rate of children of preschool age ($R2 = 0,08$) wasn't revealed. The calculated cumulative risk indicators for the period from 2010 to 2014 to get dental caries for preschool children ($1,297 + 0,121$) % and school-age children ($1,434 + 0,187$) % of Borisov have no significant differences ($t = 0,69$, $p > 0,05$). To identify possible causes of caries among children of younger age groups, 90 parents of preschool children served by the Borisov Children's Dental Polyclinic were interviewed. Calculation of attributive effects revealed that if we assume that the regular use of easily assimilated carbohydrates in the form of sweets is a preventable cause of caries among preschool children, we can expect a 25 % decrease in the incidence, with full control of their use in the group that regularly consumes sweets. The calculated relative risk of dental caries for children regularly and according to the parents occasionally consuming sweets was 2,01 [0,82, 2,91], and taking into account confidence intervals was more than 2 times higher than children consuming sweets under strict control of parents.

Conclusions. The revealed reliable differences in the direction of decreasing the incidence rates of caries of school-age children served by the Borisov Children's Dental Polyclinic are the result of using of international experience in the prevention of dental diseases. Data on dental habits of the lifestyle of children and adults responsible for the formation of these habits (parents and teachers) and their level of knowledge on dental health are key information in the implementation of the caries prevention program.

THE USE OF LOW INTENSITY LASERS IN PATIENTS WITH DIABETES MELLITUS TYPE 2

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In this work a comparative analysis of patients with diabetes mellitus type 2 and without diabetes type 2 before and after the laser treatment in patients in Rechitsa central district hospital is shown. On the basis of the work, you

can see the effectiveness of the impact of magnetic-laser device «Vityaz» in patients with disease diabetes mellitus type 2.

Keywords: Diabetes mellitus type 2, low laser intensity, laser magnetic therapy, infrared radiation

The diabetes mellitus type 2 is a chronic disease of the pancreas with impaired carbohydrate metabolism and the development of high blood sugar level due to the decrease in the sensitivity of tissues to insulin and violations of his generation.

In Belarus more than 220 thousand people suffer from diabetes mellitus.

The impact of laser device «Vityaz» in patients with disease diabetes mellitus type 2 is analyzed.

Under the influence of the device there is a reduction of blood sugar levels of patients. The use of laser device «Vityaz» has a positive effect and it used successfully as a preventive and therapeutic factor in combination with other medicines in the treatment of diabetes mellitus type 2.

To research the effect of low laser intensity «Vityaz» a comparative analysis of level of glucose in capillary blood before and after meal in patients with diabetes mellitus type 2 while receiving medication and patients without diabetes mellitus type 2 was carried out in this work.

It was found that the blood sugar levels in patients with diabetes mellitus type 2 and without diabetes depend on food intake. Blood sugar is less before meals, after a meal the blood sugar level increases depending on food intake.

Patients with diabetes mellitus type 2 get complex lowering of the level of blood sugar: medicines together with the influence of low intensity laser on the pancreas.

Quick effect is obtained in the treatment of diabetes mellitus type 2 by the method of laser magnetic therapy: combining the effects of infrared radiation and a constant magnetic field. There is a significant reduction in blood sugar with the help of complex effects.

It was established that the laser device has a positive effect on blood sugar levels as in patients with diabetes mellitus type 2 and in healthy patients. The sugar level in the blood reduces.

A complex effect on the pancreas has a positive effect on improved of indications of blood sugar levels. Laser therapy of diabetes mellitus type 2 is primarily aimed at improving the efficiency of pharmacological treatment: stimulation of hormonal activity of the pancreas leads to reduced need for glucose-lowering medication at 50 %.

The diabetes mellitus type 2 is not cured completely, but condition improves. In order to experience a full quality of life and well-being, you should follow an appropriate diet and monitor the progress of the disease with regular visits to the endocrinologist.

It is impossible to cure of diabetes mellitus by method of low-intensity laser therapy, but it is the only opportunity to eliminate regularly concomitant vascular lesion in diabetes mellitus.