

SECTION 18.

MEDICAL SCIENCES AND PUBLIC HEALTH

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FOOD PRODUCTS' INFLUENCE ON THE DEVELOPMENT OF PERIODONTITIS

1. Introduction

There is no major opinion among scientists as to the influence of nutrition on the diseases of teeth and periodontum. It should be noted that a number of researchers noticed positive effects, in particular, of dairy products on condition of oral cavity. The modern investigations demonstrate the influence of nutrition on the inflammatory processes in the body, which, in turn influence upon the periodontum. Data testify that antioxidant-rich products are useful, while the products with a high level of refined (purified) carbohydrates cause the inflammatory processes.

Our aim is to receive the quantitative relationships pertaining to the nutrition and the condition of periodontum.

2. Materials and methods

50 students, 20-22 were to fill in the necessary data by themselves. The questionnaire consisted of three parts. The first part included the inquiry as to the consumption of definite types of food products and drinks, as well as going in for sports and smoking. The second part contained questions and answers as to hygienic habits, i.e. oral hygiene (toothbrushing, types of toothpastes, etc.). The third part was named as "map of stomatological investigation" and oriented on the diagnosis of condition of teeth and periodontum.

Statistical assessments were performed as to the condition of periodontum in boys. Three types of periodontum were under study: healthy (0), gingival bleeding (code 1), dental tartar (code 2). The following structure of these types of diseases is observed: 45,5% - healthy periodontum; 31,8% - signs of bleeding; 22,7% - dental tartar. The simultaneous combination of dental calculi and gum bleeding is very seldom.

3. Results

1) students with healthy periodontum consumed dairy products, on average, 9,66 times per week; fruit and vegetables -10,08 times weekly;

2) students with signs of gum bleeding consumed dairy products, on average, 5,54 times per week (a substantial decrease if compared with the first group); while consumption of fruit and vegetables -7,86 times weekly (is less than those consumed by healthy persons);

3) students with signs of dental calculus consumed dairy products, on average, 8,92 times per week, while consumption of fruit and vegetables - 9,8 times weekly, that is comparable with healthy persons.

The obtained results of investigation make it possible to conclude that there is an influence of consumption of both dairy products and fruit and vegetables on the condition of periodontum.

The similar method of approaching was used to determine the influence of foodstuffs on the condition of periodontum in group of girls.

The average consumption of dairy products by girls is equal to $x_{\text{mean}} = 6,45$, while the average number of carious teeth - $Y_{\text{mean}} = 7,98$. In comparison with the boys ($x_{\text{mean}} = 9,26$), the average dairy products consumption is much smaller (on 30%), while the number of diseased teeth is much greater, on average, on 24%.

The presence of correlative relationships between the amount of consumed products and the indices of condition of teeth make it possible to conclude that, generally, the influence of the amount of consumed products by young women is much less than in young men. It is confirmed, for example, by obtained evidence of correlation indices ($R_{\text{female}} = 0,15$; ($R_{\text{male}} = 0,30$), which are used to assess the interconnection between the number of diseased teeth and the milk consumption by group of women (R_{female}) and the group of men (R_{male}).

4. Conclusions

The statistical survey of the state of periodontium showed, that there is an effect of consumption from dairy products and vegetables, fruits on the state of periodontal disease. Thus, gum bleeding was observed in individuals (boys) who consumed significantly less dairy products and vegetables, fruits in comparison to healthy individuals. As for a dental calculus, the effect of these two product groups consumption is almost not observed.