

DIET AND DENTAL CARIES. THE ROLE OF FOOD, BEVERAGE AND FOOD RETENTION IN ORAL CAVITY

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Abstract

Starting from the most important causes which favoring caries, in this study are required to start from food analysis adopted by a group of patients registered to an dental office, as prophylactic factor of caries process because the imbalances diet are favoring factors for dental caries (Mincu at all, 1995).

Cariou disease is a bacterial condition which has as results destruction of calcified tooth tissue. Bacteria involved in cariou processes feed on carbohydrates, issues that need to be researched through prophylactic food investigation in dental offices where the patient is enrolled (Mihele, 2008).

Food causes that inducing appearance of caries process are related to: diet rich in carbohydrates, low in protein, excessive soft and sticky foods, nutrition poor in vitamins (especially vitamins A, B, B₆, C, D), frequent consumption of pastas and products containing sugar, especially refined sugar, diet low in calcium and phosphorus, insufficient fluoride in tooth enamel(Drugărin, 1999).

Key words: *diet and dental caries, nutritional balance, dietary dental prophylaxis*

INTRODUCTION

Although the role of nutrition in the etiology of dental caries has been shown to be small, however it is not insignificant. Cariogenic diet causes structural disorder in the formation of dental hard tissues. Protein deficiency during development lead to reduced size and body mass, to disturbances of structural dental (Dumitrache S., 1985).

The role of carbohydrates as a factor of major importance in the development of dental caries has been elucidated in many studies that have shown that carbohydrates adhere to the tooth surface and gently penetrate microbial plaque, favoring the development and growth of pathogens on tooth surfaces (Dr. Joan Webster-Gandy, 2008). As a result it increases the quantity of acids causing enamel demineralization.

Unbalanced nutrition, riches in sugar and carbohydrates and low in vitamins and minerals can lead to disorder of metabolism, obesity, improper

development of children teeth, gum disease and apparition of caries (Michael van Straten, 2008).

MATERIAL AND METHOD

Methods of analysis are represented by the food investigations completed by a dietary history which was found nutritional deficiencies and food mistakes common among young people and children in particular, which today consumes many products containing refined sugar, carbohydrates with fermentative potential and pH acid.

Food investigations is one of the methods most widely used in actual practice and which consisted in collecting information about quantity and type of food intake and nutritional calculation based on their composition, providing relations concerning to individual's or a group nutritional intake.

The method used in this paper was to evaluate collectively diet food investigation realized by completing questionnaires that were recorded specifically all quantities of food used in a settled period of time, calculating the average consumption of food per day for a person and nutrient content.

Because in all fields of science is always something new to learn: cariology do not make exception to this rule, and after some nutritional analyzes and determinations have learned many new things that have been a scientific starting of fight against dental diseases because caries is a multifactorial disease that requires a capable field, the existence of bacteria, food for them and time for the caries process to occur. Removing one of these factors will lead to the disappearance of the caries process.



Fig. 1. Bacetrial plaque

RESULTS AND DISSCUSIONS

Caries is a multifactorial disease that requires a capable field, the existence of bacteria, food for them and time for the caries process to occur (Lungu, at all, 2001). Dental caries appears as a change in color or translucency, deficiency of substance more or less profound or not detectable by inspection or palpation with the probe (Popescu, 1988).

Figure 2 shows that the diet of a group of patients, analyzed by content in proteins, lipids and carbohydrates registered increases of percentage toward recommendations to all three factors, so the protein percentage registered minimum increase to 0,42% and maximum of 3,94%.

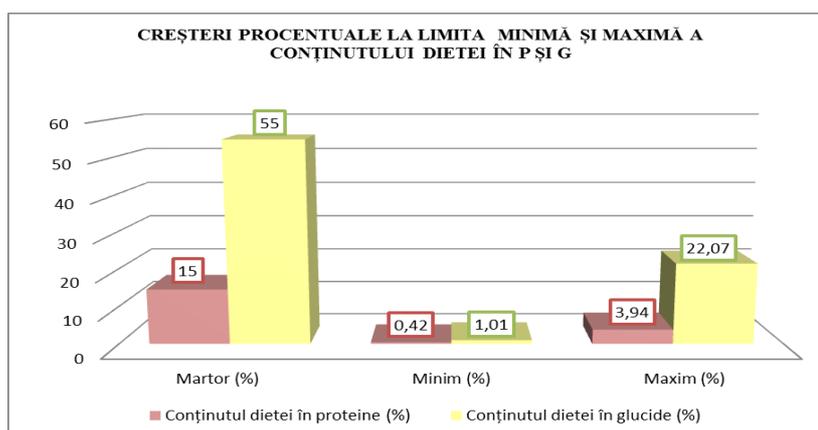


Fig. 2. Percentage content of the diet of a group of patients evaluated for the prevention of dental caries

After analyzing the percentage content of carbohydrate diet, in figure 2 can noticed that percentage increases beside recommended limits, resulting minimum increase by 1,01% and maximum increase by 22,07%.

Results of the study and big influence of food with content in protein and minerals for the prevention of dental caries and drug-free treatment requires following preventive measures:

1. Balancing the diet through analysis of content in no calories and calories nutrients factors so as to comply with the ratio between these factors.
2. Establishing of statistical investigations and interviews by dentists for the prevention of dental caries, which is a commonly disease frequently found at adolescents, children and more.
3. Giving more attention concerning to food and nutritional balance of children and adolescents through educational classes in schools and hours included in the tutorial program.

CONCLUSIONS

Dental problems lead to an improper mastication requiring the elimination from daily diet of foods with harder consistency, which had negative effect on health and digestive system and on whole organism.

Very important to remember is that a series of foods rich in calcium, such as: fruits and vegetables, whole grains, rice, milk, yoghurt and cheese, chicken and fish, eggs, nuts, seeds, hazelnuts, have a cariogenic protective role against bacterial plaque.

Through some chemical constituents, food can shape the hydro carbonates cariogenic effect, reducing the risk to the emergence of caries process.

Phosphates present especially in natural unrefined cereals flours can be added as sodium phosphate 1,3% or calcium phosphoglucose in industrially prepared food or chewing gum, proving an carioprotector effect. Using for a long time it will presents some disadvantages such as the inefficiency of their accumulation in bacterial plaque, having a faster salivary clearance than sugar, excessive formation of tartar and even the risk that generate calcium dystrophies in some internal organs.

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