



NUTRITION INFLUENCE ON THE CONDITION OF HUMAN JAW-TEETH SYSTEM

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Abstract. *A nutrition process and its influence on the condition of human jaw-teeth system is considered to be one of the important aspects of research.*

In particular different kinds of diseases caused by life-giving, anti-nutrition and unknown genus substances are evaluated in the article. In this time the definite concentration of mercury, lead, cadmium, radon and other elements, penetrated in organism provoke pathological complications of dental systems.

Key words: *jaw-teeth, mercury, nutrients, pesticides, transferring viruses, Radonal radiations, Cardio-vascular illnesses, Gastro-intestinal tract illnesses, Urine-genital system illnesses.*

The first unit of the food chain on our planet represents plants, first of all, its green cover. Because of the sun energy on the earth, by different geochemical procedures and photosynthesis, proteins and carbohydrates- the main energetic components proteins are formed.

The animal organs can only exist by using organic substances prepared by plants, which are formed as fats, proteins and carbohydrates.

The human also gains prepared energy and organic substances by using mixed food according to the limited complex of natural products, however, it has recently appeared synthetic, artificial food.

The products – these are the compound complex of chemical substances, which contain life-giving, anti-nutrition and unknown genus substances (xenobiotics).

Life-giving is food (fats, proteins and carbohydrates, vitamins, mineral waters and salt) and taste substances (organic acid, Ketons, Ether, aromatic mixtures). Feeding products are called nutrients.

Some natural products contains such mixture, which are nontoxic but they block or brake mastering of nutrients. Such mixtures are called anti nutrition substances. They contain antienzymes, antiamino acids, antivitamin and demineralized substances.

Unknown genus chemical substances contain pesticides, heavy metal crystals, radionuclides, micotoxins, alkaloids and etc.

Life-giving and anti-nutrition substances represent natural components of food, while unknown genus substances represent pollutants, which is a serious ecological problem and they enter the organism by different ways.

Unknown genus substances do not only carry unusable biological feature, but they also effect negatively on human organism: immune deficiency, slow assimilation of products, violation of reproduction function, toxic, Embryotoxic, mutagenic, cancerogenic and teratogenic effects, and also speeds up the aging process. The majority of these substances enter organism through the air, water and soil. It is connected with pollution of unknown genus products that is implemented by pesticides, which contains toxic substances too.

The food often contains ksenobiotic metal – Hydrargyrum, which represents components of some pesticides and is used for poisoning wheat seeds in order to destroy pathogenic mushrooms. Using these kind of wheat destroys birds, and then the animals, which eat them. The wastes of Hydrargyrum are found in chicken eggs too.

Unknown genes substance is so called dust, which has been used in the whole world since 50-60^{ies} of 20th century and because of it, in some parts of the earth destroyed transferring viruses of malaria and tips. The creator of dust, P.Muler, received the Nobel Prize.

But it appeared that, it has the skill of accumulation in the organism of plants and animals and it finally enters the food.

The toxic substances, such as Plumbum, Cardeum, polithiclonic aromatic carbohydrates, Diocsin, nitrosanim, hormones, beta-blockades, antibiotics and radioactive substances, may enter the food.

It should be especially mentioned the pollution of products by natural and artificial radioactive substances, particularly by Radon it is expected to cause

Radon natural resources include cosmic atmosphere radiation, thermal waters and soil Radonal radiations. Their concentrations are mainly increased magnetic hurricanes, earthquakes and other natural disasters. Radiation artificial resources can be divided into technogenic and medical component. Technogenic components may include concentrated natural radionuclides, ionized radiation generators and others, while medicine includes diagnostic and radio therapeutic procedure. Almost 70% of natural source is polluted, 1% - different nuclear sources medical procedures[1].

Natural radon background changed by techno genic represents the result activites of human. We talk about living and manufacturing buildings, where

building materials, are used containing radon and Thoron, also on the highway roads, agricultural fertilizer, where exist the concentrates of these substances and other radioactive components[2].

The main source of illness and radiation of jaw-teeth system and human organism in the buildings and radioactive fields represent Radon and Thoron which enter into the organism through the air, water and food. Radon average content in the normal conditions of human life is 35 mBq/l, Thoron is about 2 points low. If the number to cause of these components is more than 200 Bq/l, then it is expected important complications in jaw-teeth system and in other organs, particularly, according to the research 15-20% of lung cancer happens because of the influence of these substances.

It is also important that the complication of jaw-teeth system is caused by Plumbum and Cardium.

During the intoxication by Plumbum, and with many other illnesses, Plumbum kaima arises on the edge of gum, which represents narrow blue line on the gum of front teeth. It is formed by Sulfur and represents Plumbum component. But kaima has the diagnostic importance only in the case of other poisoning. Regular cleaning of teeth kaima is not noticeable. In the case of chronic Plumbum poisoning, it is noticeable the unpleasant smell from mouth, is caused by allocation of Plumbum from salivary glands. At this time, it is marked by frequent saliva and sweet metal taste.

Different from metal cadmium, which is not characterized by toxicological activity, cadmium oxides are toxic and they enter the organism through food and its steam, smoke and dust. The cases of acute poisoning are rare.

Chronic cadmium poisoning is accompanied with some pathological changes in oral cavity. There may appear the yellow round color in the teeth zone. This may be connected with accumulation of sulfur cadmium, which arises by interaction of cadmium and sulfur the hydrogen in the oral cavity.

1. Law of food energetic adequacy, which means the relevance of energy amount with food and its energetic expenses.
2. Law of food substrata adequacy, according with the food, which should be relevant of morpho functional indicator and metabolism features of organism e.i biological object should have its food.
3. According to the Law of food plastic function adequacy, food should provide its own structural biosynthesis, not unknown organisms.
4. According to the adequacy law of organism development of food and its biorhythms, it takes into consideration specific features of food of different age and population groups, climate and other features.
5. The law of food biotic i.e the law of organism protection

Breaking any of these laws causes different kinds of illnesses, which are called alimental illnesses[3].

The violation of food regime cause following illnesses:

- a) Cardio-vascular illnesses (atherosclerosis, ischemic heart illnesses, hypertensive illnesses and etc)
- b) Gastro-intestinal tract illnesses (gastro and duodenal, kidneys and intestines illnesses including oncological.
- c) Urine-genital system illnesses
- d) Metabolism (sugar diabetes, hyper , hippo and avitaminosis, obesity)
- e) Teeth and oral cavity illnesses and etc.

The violation of food regime causes the decrease of organism immune system. At this time people are often infected by oncological illnesses, which begins early ageing process, and decreases life duration, the virus of immune deficit and new, yet unknown virus infections may be created.

Rational feeding is the main part of human healthy life style and it plays an important role avoiding dental illnesses such as caries, Gingivitis, periodontal and etc. also the role of feeding appears in the following aspects:

- a) Resistant teeth formation for the action of noncontributing factors.
- b) The reduction of sample carbohydrates caries genic action.
- c) The growth of self-cleaning effectiveness, perfection of chewing and teeth section system.

Discuss each aspect.

One of the main conditions in the formation of resistant teeth for caries represents pregnant woman's sufficient feeding in quantitative and qualitative structure. So, the dentist and Acuter-Gynecologist should take active participation in the control of pregnant feeding. They should be given fundamental recommendations for increasing dairy products (calcium, phosphorous, vitamin D), vegetables and fruit (vitamin C and other vitamins and salt sources) the in wide assortment of products. While supervising a pregnant, it should be appointed extra products, vitamins and mineral substances if necessary.

During the second part of pregnancy, it is recommended the decrease the usage of easily assimilated carbohydrates, because using its big doze may cause caries, allergic reaction of organism and disturbance of metabolism.

It is important that these substances enter the organism in the form of products, but in many cases they use medical drugs (calcium glycerol phosphate, calcium gluconate, vitamin-mineral complexes).

In formation teeth tissue, is esentia correct nutrition, especially in the first part of human life, because throuth the process begin the formation of permanent teeth and their development.

It is well-known that the baby organism is less adapted to environmental impact and it cannot adopt the wide assortment of products. That's why the ideal

product for babies is breast milk. Natural nutrition provides children organism with all important substances and there is no need of correction. But in this period, mother control should be continued, which provides the demands in vitamins and calcium, phosphorus and fluoride salts[4].

During the period of artificial nutrition, it is important to compensate its deficiencies in the form of entering juices, puree and other products in the nutrition.

According to children development we should take into consideration their high demands in calcium and phosphorus salts, vitamins D and A, fluoride. So, in the ratio there should be dairy products, vegetable, fruit, meat, eggs and other essential products.

According to many specialists, caries development is directly connected with the increasing usage of sweet carbohydrates (sucrose, fructose, glucose).

In this regard, the information about moving from the traditional nutrition of different people to the modern, is followed by caries illnesses.

Carbohydrates are normal and essential components in the daily ratio of healthy human, when they have the important physiological and biological functions. So, we should not refuse it.

The pathology of jaw-teeth system is caused by caries genic diet, which is characterized by huge number of carbohydrates in products; lack of vitamins B, C and D, low nutrition fibers and abundance of phosphate.

Such nutrition may cause caries, violation the hard teeth tissue and tear shell of the oral cavity.

In this case, prophylaxis for mentioned pathological changes, is recommended herbal-milky diet. It contains the essential number of insufficient components.

Simple carbohydrates plays the main role in the formation of teeth caries, as in the human oral cavity, there exist all essential conditions for their glicolised decomposition. In particular, such conditions are: temperature of saliva, nearly 37degrees, micro flora, that removes carbohydrates to organic acids.

In the oral cavity, carbohydrates metabolism ends with creating different organic acids (milk, vinegar etc.) their concentrations are dangerous for hard tissue of teeth. Carbohydrates metabolism is progressing in saliva.

As a result of this, using carbohydrates in products represents the mechanism of reactions, which leads us to the violation of enamel dynamic balance, in the direction of demineralization process intensity.

Researches showed that caries genic role of carbohydrates depends not only on the usage number, but also on its quality, physical features and its existence in oral cavity. The last one represents pathologically justified activity. It depends on the reduction of contact time with carbohydrates of teeth tissue. It is proved that after taking carbohydrates, it is noticeable sucrose increasing concentration in oral cavity, during 20-40 minutes. This time is important for

utilization of carbohydrates wastes by microflora, because they have the cariesogenic influence.

Using this method, it is important to follow the simple regular rules, for caries prophylaxis realization: do not eat sweets during a night. If this rule is broken, you should clean your teeth immediately or wash out with water. The given rule is represented in the work "carbohydrate usage culture" by V.K. Leontief, a famous specialist in this sphere.

Nowadays, in leading countries, it is under research, the methods of decreasing cariesogenic carbohydrates in organism by using enzymes. In this case, in the oral cavity there is formed the process of sugar metabolism. This and also the method of sweet product and fluoride mix are under research and talking about their effect is early.

Nutrition itself is revealed as a practice factor of self-cleaning of oral cavity and its organs. This role of nutrition is connected to the chewing function implemented by jaw-teeth system.

One of the effective ways of self-cleaning of oral cavity is to take products such as fresh vegetable and fruit, which need a long chewing process. In this way, this practice the jaw-teeth system and challenges the emission of saliva. It is recommended to take fruit and vegetable after sweet meal and, between nutrition intervals.

It is proved that spicy meal effects negatively on jaw-teeth system, which causes the changes of tear shell of oral cavity, in the form of leukoplakia and it is rated as a previous form of cancer.

As for the pathological complication of jaw-teeth system caused by taking products are polluted by electromagnetic and radioactive radiation, in the dental ecology the important gaps are noticeable and it is necessary to hold intensive researches to avoid expected problems. Rational nutrition of the human is the strongest factor for avoiding teeth and parodontal illnesses and their treatment.

References:

- [1] 1.T.Adeisvili, V.Nakashidze, T.Naveriani. The Influence of space factors on the biosystems. Kutaisi, 2004 (In Georgian).
- [2] 2.T.Adeisvili, L.Khvedelidze. A ecological effects caused by disturbances of Geomagnetic fields. The works of Kutaisi state Technical University. №1 L(2), Kutaisi, 2002 (In Georgian).
- [3] 3.A.Lakshin, B.A. Kataeva. The General Ggiene with the Human Ecology. Moscow, „Medicine”, 2004 (In Russian).
- [4] 4.R.Zoloev. The Influence cadmium and Tsience on the conditions of jaw-teeth systems of whorkes. Dissertation of kandidat of Sceience, M., 1997 (In Russian).