



COHERENCE OF THE DEVELOPMENT OF ATHEROSCLEROSIS AND ETHNIC FOOD TRADITIONS OF THE WORLD REVIEW

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Annotation

The article presents a review of modern literature on the issue of coherence in the development of atherosclerosis and ethnic food traditions of different parts of the world. Analytical information is provided on current trends in the transformation of culinary preferences. It is shown that in the conditions of today's globalization and unification, among the older generation, food remains a track of a stable marker of ethnic identity. On the other hand, subsequent generations are significantly inclined towards unification, which manifests itself in the consumption of store-bought products, dishes based on recipes from the Internet, not to mention fast food, which has a single standard throughout the world. It seemed interesting to conduct an analysis based on literature data from open sources of the last 5 years of the coherence of the development of atherosclerosis and ethnic food traditions. Deviations in eating habits are indicated, accompanied by appetite disturbances and obesity, which is important in the development of atherosclerosis. A clear dependence of life expectancy on dietary style has also been demonstrated. The Mediterranean diet and traditional nutrition in Japan had a beneficial effect on this indicator. Explanation of the possible mechanisms of this phenomenon is the essence of this work.

Keywords: atherosclerosis, ethnic, tradition, food, long-livers

Introduction

The food traditions and customs of various ethnic groups are considered the most stable elements of cultures. Despite the vector of globalization and unification of the development of the modern world, they continue to remain the most stable marker of ethnic identity. It should be said that this is legal for people of the older generation. For various reasons, for example, such as the desire to meet modern requirements





for a healthy diet, the influence of advertising, the process of changing food preferences is underway.

Children and grandchildren in ethnic groups are all largely subject to unification, which is manifested both in the greater consumption of store-bought products and in the preparation of dishes, recipes for which are taken from the Internet [1, 2, 3]. On the other hand, research in the field of etiology and pathogenesis of atherosclerosis also remains a relevant and modern trend. This pathology attracts the attention of researchers because, being associated with cardiovascular diseases, it is the leading cause of mortality in the world's population. [4, 5, 6]. Issues of ethnic food culture in the light of its interaction with the development of atherosclerosis within the framework of the metabolic theory of its development have not been left aside [7, 8, 9]. The above makes very interesting reports on modern views on the pathogenesis of atherosclerosis [10, 11, 12], which includes this review of literary sources of recent years.

Materials and methods

The material for this message was numerous scientific works posted in the public domain of Internet resources on scientific platforms, journals, collections, and monographs. An analytical review of publications and literature sources in the PubMed, Medline, Web of Science and Cochrane Library databases starting from 2018 is presented in this article.

Results and discussion

Modern data indicate, that food serves as an integral element of the axiosphere of human life, in connection with which the principles of nutrition culture have been historically formed, including knowledge of the basics of proper nutrition, the properties of products, their effects on the body, the ability to choose, prepare, serve them on the table. Research into the problematic elements “food” and “culture” in cultural studies of everyday life continues to be interesting. The sets of food products characteristic of different peoples, the methods of their processing, the types of dishes, the traditions of preference or avoidance, the organization and ritual of meals and other aspects of everyday culture directly or indirectly related to food reflect the ethnic and cultural-historical specificity of the people [13, 14].

It seems important to note that in the era of multi-vector cultural relations, the relationship between the values of ethnic groups is a necessary factor in creating a holistic idea of world culture and at the same time the progress of ethnic cultures. At the present stage of sociocultural development, two opposing trends are emerging -





the active borrowing of foreign cultural values, on the one hand, and the transmission of original values, on the other. We are convinced of this by data from ethnography, ethnology, and the results of cultural studies [15, 16, 17].

At the same time, a number of researchers note the presence of an “axiological paradox”. Despite the fact, that the axiosphere of ethnic culture is a cycle of dynamic and stabilizing values, within its boundaries it is constant: this constancy is set by its central zone, which filters newly arriving values based on compliance with the “value frame”. The borrowing of values as such occurs partially: only their elements are accepted, and not the main ones, due to which originality is not lost, due to which the ethnic culture remains self-identical for centuries. This property can play a dual role: both to help it master new areas of life and develop, and to “preserve” it [18, 19]. The convergence of trends in ethnic food and atherosclerosis occurs due to the fact, that the development of this dangerous and insidious disease, which underlies widespread diseases of the cardiovascular system, largely depends on the nature of nutrition. This is confirmed by the fact, that there is a currently existing metabolic theory of the pathogenesis of atherosclerosis. Not only has it not lost its relevance, but it continues to develop dynamically. This is due to the fact, that one of the important modifiable risk factors for the occurrence and development of atherosclerosis is nutritional disorders and obesity. The latter may largely be related to people’s ethnic culinary preferences [20].

It is very significant, that one of the main elements in the complex of preventive and therapeutic measures for cardiovascular diseases is a comprehensive assessment of patients’ nutrition and diet therapy. A number of authors, bearing in mind the fact, that multivitamin deficiency is observed in chronic diseases, including cardiovascular diseases, consider this deficiency as one of the possible risk factors for heart and vascular diseases [21, 22].

It is noteworthy, that this is associated with the ability of antioxidant vitamins (E, C, β -carotene) to inhibit the peroxidation of low-density lipoproteins, which plays an important role in the mechanism of development of atherosclerosis. It is indicated, that the study of ethnic nutrition, vitamin supply, as well as assessment of quality of life, stress levels, anxiety are very relevant from the point of view of the conceptualization of the facts of the risk of cardiovascular diseases and the possibility of preventive interventions [23].

In connection with the above, the efforts of specialists to use all kinds of nutritional technologies to correct impaired metabolic status in people with vitamin deficiency, obesity and metabolic syndrome seem quite logical. These include low-calorie diet variations, specialty foods, functional foods, and nutritional supplements. The





important role of normalizing the functioning of the digestive-transport conveyor has been postulated in restoring the imbalance of the axis: brain - liver - microbiota of the gastrointestinal tract in this category of patients and, as a consequence, adequate optimization of the neuroimmune-endocrine regulation of metabolism [24, 25].

The data on the importance of nutrition in the development of atherosclerosis obtained in animal experiments are interesting. We are talking about rabbits or dogs, in which atherosclerosis does not develop under natural conditions. Feeding with cholesterol leads to persistent hypercholesterolemia, which progresses as the period of experience lengthens [26, 27]. A pathological examination of the vessels revealed atherosclerotic lesions in the form of lipid spots and stripes and fibrous plaques. The results obtained confirm the existence of a direct connection between nutrition and the development of atherosclerosis. This species is within the framework of the nutritional or metabolic theory [28, 28a, 29].

One of the well-known variations of diets aimed at the beneficial effects of the lipid profile, body weight, carbohydrate metabolism, blood pressure and cardiovascular morbidity in general, is the Mediterranean diet. In recent decades, it is precisely this that, due to its cardioprotective mechanisms, has been the subject of study by cardiologists all over the world. It is no secret, that non-drug prevention and treatment of cardiovascular accidents occupy a fairly impressive part of research. These include rationalization of nutrition. In addition to the positive effect on risk factors for cardiovascular pathology, there is well-known evidence of a decrease in mortality from cardiovascular diseases with adherence to a certain dietary model [30].

An example is the dietary style, first described in the early 1950s by Ancel Case in his Seven Countries Study, which was mainly followed by poor rural communities in the Mediterranean basin, later called the "Mediterranean diet" [31]. A distinctive feature of this ethnic eating style was the abundant consumption of fats, but only in the form of olive oil, nuts or fatty fish, moderate consumption of red wine during meals and a large number of grains, fruits and vegetables in the diet. Restrictions were placed on fatty dairy products, red meat and poultry.

Subsequently, PREDIMED (PREvencion con DIeta Mediteranea) researchers confirmed the protective effects of the Mediterranean diet and identified it as one of the most important components in the prevention of cardiovascular diseases [32, 33]. Further studies showed a significant cardioprotective effect in the form of a 50–70% reduction in the incidence of recurrent infarction and mortality when using the Mediterranean diet [34].





Even more compelling were the results of studies, that postulated that the Mediterranean diet model was comparable to drug interventions such as aspirin, statins, ACE inhibitors and beta blockers, as well as physical activity in reducing the risk of cardiovascular disease and mortality from them [35].

The Mediterranean diet is the most studied and evidence-based ethnic eating pattern for preventing not only cardiovascular accidents, but also other chronic diseases (cancer, obesity, inflammatory bowel disease), so it has become a standard for healthy eating and a dietary pattern of particular value. It was noted that the bulk of the studies were carried out in the Mediterranean basin; the possibility of obtaining ambiguous results in other groups (living in different climatic, geographical, social conditions) cannot be excluded. For part of the population, products that are part of a given dietary pattern may not be available (due to climatic, social or religious reasons) [36].

A large study of the relationship between the characteristics and style of nutrition as a risk factor for obesity and, through it, atherosclerosis and cardiovascular diseases, showed that in modern conditions of increased stress and physical inactivity, preconditions for obesity and overweight appear. Psycho-emotional stressful situations can contribute to the development of nutritional obesity, since people experiencing stress are prone to poor nutrition, excessive alcohol consumption, and physical inactivity [37].

According to the Oxford Dictionary of Psychology, eating behavior is a general term used to refer to all the different components of behavior involved in the normal process of eating, which includes preparatory behaviors such as food seeking, actual food consumption, and a large number of physiological processes. involved in the disposal of what was eaten. Eating behavior can be harmonious (adequate) or deviant (deviant). Eating disorders (deviant eating behavior) are understood as disorders, in which food consumption in composition, quantity, method of consumption and preparation does not correspond to the need for nutrients and energy [38].

In modern literature, eating disorders are considered as a socially acceptable variant of addictive behavior. Addictive or dependent behavior is one of the types of deviant (deviant) behavior. The essence of addictive behavior is that, in an effort to escape reality, people try to artificially change their mental state, which gives them the illusion of safety and restoration of balance [39].

Currently, within the framework of the socio-psychological typology of pathological eating behavior and its regulation, there are 3 main types (strategies) of addictive eating behavior: external, emotiogenic, restrictive. With external eating behavior, food consumption is initiated not by homeostatic internal stimuli (hunger, low blood





glucose levels, unfilled stomach, etc.), but by external ones (including olfactory) - a set table, people eating, food advertising, smell of food, etc.

For the emotiogenic type of eating behavior (hyperphagic reaction to stress, emotional overeating), the stimulus for food intake is also not the feeling of hunger, but emotional discomfort, which a person “eats” in an effort to find peace of mind. Emotional overeating has 2 main forms: paroxysmal (compulsive overeating) and night eating syndrome (overeating with disruption of the daily rhythm of eating). Restrictive eating behavior refers to excessive self-restraint in food with unsystematic strict diets [40, 41].

Concluding this message, in contrast to the obesity and development of atherosclerosis described above, we present an interesting work devoted to the relationship between the nature of nutrition and the life of centenarians. In the early 2000s. The results of a study on the influence of culture and diet on the state of the cardiovascular system of representatives of the population of the Japanese island of Okinawa have been published. The point was, that the characteristics of the diet and nutritional culture are a key factor determining their health and longevity. It has been established, that a feature of the diet of Okinawans is the consumption of seaweed (mainly brown and red with minimal heat treatment) along with foods rich in polyunsaturated fatty acids and natural antioxidants. This made the diet of the island's inhabitants significantly different from those of other regions of Japan [42]. The data obtained served as the beginning of an in-depth study of the chemical and biological properties of seaweed, and the peculiarities of the influence of the biologically active substances they contain on the human body. At the same time, it is a known fact that every fourth resident of Japan is over 65 years old, and more than 61 thousand people have crossed the century mark. The average life expectancy of Japanese men is 80 years, women – 86 years, and the active period of life lasts up to 70 and 73 years, respectively [43, 44, 45].

The presented article, within the existing capabilities, cannot accommodate the enormous amount of material, that can be read and analyzed. The authors would be grateful for suggestions and criticism. We would venture to guess, that this is not our last meeting.

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