

Differences of Nutrition in the Elderly Population with Type 2 Diabetes in Romania, Russia and Japan

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ABSTRACT: Romania, Russia and Japan are 3 countries where the differences in nutrition are not very large, but which shock us by the increased number of diabetics in the elderly population over 70 years, countries with a low birth rate and an elderly population in addition to diabetes type II suffers from hypertension, cardiovascular disease, kidney disease, neurological disease and a lot of loneliness. Prevention and monitoring programs are deficient in Romania and Russia, but excel in Japan where the state has more responsibility for the elderly population, in a relatively short time, have led to new treatments and diets, which have come to prolong the life of the elderly diabetic, ignored by certain public health systems in certain countries with the lifestyle and the consequences of this lifestyle.

KEYWORDS: nutrition, diabetes, Yoshinori Ohsumi, and eating habits

The correlations between the degree of glycemic balance and the appearance of micro and macrovascular complications of diabetes have been intensively researched over time. With the advent of trials in large clinics, which included a significant number of patients in many centers, pertinent conclusions could be drawn that led to the development of treatment guidelines and the establishment of therapeutic targets for both metabolic control and treatment of associated risk. Analyzing the literature, we found numerous data on the link between diabetic neuropathy and the importance of glycaemia control between old population from Romania, Russia and Japan.

Diabetes is common in the elderly population. By the age of 75, approximately 20% of the population may be afflicted by this illness. Diabetes in elderly adults is metabolically distinct from diabetes in younger persons and the treatment is different in this age group. Diabetes is associated with an important poor life quality and with a significant morbidity due to macrovascular and microvascular complications. The optimal glycemic level and the changes in the risk factors can reduce the risk of complications in the elderly population.

With age, there are more changes in the carbohydrates metabolism which interact with the genetical history to explain the incidence of diabetes in the elderly. Moreover, lifestyle plays an important role. Obese people (especially those who have the abdominal obesity type), with a diet rich in saturated fats or who are sedentary, have more chances to develop diabetes once they age said Roxana Mateescu from Romanian Bucharest Hospital St. Luca (Mateescu n.d. 50). Aging and hormonal factors that influence atherogenesis in women with diabetes in opinion of Vasile Anestiadi (Anestiadi 2018, 50).

Epidemiological studies show a higher incidence of atherosclerosis (ATZ) and ischemic heart disease (CPI) in postmenopausal diabetic women (FDPM) compared to nondiabetic postmenopausal women (FNDPM). It has also been shown that in diabetics, the gender difference in ATZ rates depends on the age of the patients, and these rates have a tendency to equalize after the age of 40. The same phenomenon is specific to ischemic heart disease. The aim of the study the proposed goal was to research the hormonal parameters in FNDPM and FDPM in terms of predisposition to atherosclerosis and ischemic heart disease, the Romanian researcher Vasile Anestiadi showed in his study (Anestiadi 2018, 50).

American researchers have discovered a special protein complex - a molecular switch responsible for the immune response to chronic inflammation in the body. Deactivating this complex allows you to stop the aging process, the development of cancer and diabetes, as well as

age-related diseases such as Alzheimer's and Parkinson's. The results of the study were published in the journal *Cell Metabolism* (Sputnik 2020).

In the elderly, under stress or adverse environmental conditions, there is a constant hyperactivation of this complex and, as a result, overloading the body's immune system and chronic inflammation, which causes various destructive diseases - from sclerosis and dementia to diabetes and cancer emphasizes the same authors (Sputnik 2020).

The adoption of a varied and calorically balanced diet, along with physical activity and regular screening actions, are some of the measures taken in Romania that must be taken into account for prevention, control and, consequently, proper management when it comes to diabetic neuropathy. In cases of diabetic neuropathy, the most common complication of diabetes, adopting a balanced diet rich in vegetables, fruits, whole grains, fish and nuts allows you to keep your blood sugar levels within normal limits.

People with diabetic neuropathy should also adopt an appropriate diet, eat at regular intervals and eat moderate portions, of the same consistency each time, because nutrition is very important in the effective control of diabetic neuropathy, "said Assoc. Prof. Ph.D Ioan A. Vereşiu, president of the Diabetic Neuropathy Society (Vereşiu et al. 2015). Longevity is due to the sober, quiet lifestyle, food rich in fish and seafood, seaweed, consumption of fermented foods, soy, teas. In the lifestyle, singing is a form of social support, physical movement is added, thermal baths.

Life, as we know, is identified with physical movement. There is no life outside the movement and because of this, immobility is equivalent, at least biologically, to death - says Arcadie Percek (Percek 1987, 192).

Physical movement is a true architect of the body, said Arcadie Percek in his book (Percek 1987, 191-192). Physical exercise prolongs the life of diabetics and according to the latest research prevents cancer. 14% of patients with diabetes are prone to kidney cancer. The Japanese are the ones who make the most movement and respect this. In urban areas, Romanians like Russians are more sedentary, but in rural areas the countryside and households are the strongholds of the peasants.

The statement that movement also accelerates psychic processes, reviving the spirit as such. J. J. Rousseau perfectly intuited this reality about two centuries ago, when he stated, somewhere in his writings, that "sans mouvement la vie n'est qu'une letargie", respectively that "life without movement is nothing else than a simple lethargy" is quoted by Arcadie Percek in his book (Percek 1987, 190).

Japan is the country with the longest living people in the world, it is expected that in the near future they will reach over 1 million people in 100 years the longest living now is a lady who is 116 years old. Japanese Yoshinori Ohsumi became famous for a diet that helps with weight loss and cell regeneration.

Ohsumi is a 2016 Nobel Laureate in Physiology and Medicine and is a Japanese researcher specializing in cell biology. He discovered a principle of eating based on the food window (the period in which we eat). When the diet window is narrower, the risk of developing diabetes, anemia or obesity is lower.

Reducing the diet program slows down the aging process and weight loss, provides protection against skin cancer reduces the risk of breast cancer and high blood pressure.

When we increase the time, we feel hungry, the cells recycle everything that is old and useless and rejuvenate. This process is called autophagy. As for the food of the Japanese, they prefer simple food with many vegetables, prepared with rice and fish, including breakfast smoked fish and fish soup. This breakfast is eaten from small to large. Like the Japanese, the Russians prefer smoked fish. Dehydrated flax, sesame and seaweed seeds are sprinkled on rice, being considered an anti-aging remedy. Our nutritionists recommend flax and sesame seeds soaked in water before consumption. The Japanese eat them dehydrated. During meals consume green tea (powder) and oat tea.

We are not recommended to drink fluids during the meal. The Russians drink a lot of black tea from Azerbaijan. This tea is in the top of their preferences. The following are Chinese black tea or green tea with jasmine.

Throughout history, due to various influences, from Western Europe to East Asia, Russia has shaped one of the richest cuisines in the world. At first, however, the meal was quite simple. It was based on vegetables and grains, then on mushrooms, dairy products and fish. Meat was generally less consumed due to the large number of fasting days.

Russian cuisine has always enjoyed what nature has to offer, namely: caviar, fish, chicken, mushrooms and honey. The sturgeon has always been on the Russian table. From this species of fish comes the famous caviar.

The recipe for the famous Russian bread appeared in the late nineteenth century and became so well known that not even white flour can replace that of barley. According to some studies, this bread has a lot of nutrients.

Healthy food is of great importance to the Romanian people and cannot be replaced by any medical treatment. The most effective is the weighted diet for the elderly with diabetes 2.

In order to correctly determine the amount of carbohydrates required, the so-called “carbohydrate tolerance” is performed by administering for three days a diet with a fixed amount of carbohydrates decreasing the amount of carbohydrates in the diet in patients taking insulin, 2 g of carbohydrates are also deducted for each unit of insulin administered.

The regime is based on the needs of the normal person. The caloric needs of the body are dependent on age, sex, activity, environmental conditions, physiological conditions, etc. These needs relate to the ideal kilogram-body weight.

D.D. Chiriac a Romanian specialist recommends the following diabetes treatment scheme:

- Diabetic tea - 2-3 cups a day
- Aloe Vera is consumed in 40-day cures, then there is a 40-day break
- Minerals are consumed in 40-day courses, then there is a break of 40 days (in the recommended doses)
- Permanent cure antioxidants (in recommended doses)
- B vitamin complex - it is administered for 60 days with a 20-day break (in the recommended doses)

Note: during the 40-day break after the administration of Aloe Vera, minerals will be administered for 40 days (Chiriac 2006.)

The Japanese do not prefer sweets. Rice sweets (biscuits and cookies) have an unpleasant taste for Europeans. Meiji chocolate, the favorite of Europeans, is not to the liking of the Japanese. In terms of salt consumption, the Japanese prefer soy sauces with different degrees of salinity. Patients with diabetic neuropathy and hypertension in Japan are heavy consumers of soy sauce despite the recommendations.

Nattokinase, which is fermented soy, is consumed almost daily. According to research, it gives very good results in diabetic neuropathy, reducing pain. The consumption of fermented soy is not to the liking of Romanians and Russians. Nattokinase can also be consumed in the form of capsules, the treatment being long.

In Russia, the treatment of diabetes in the sanatorium is at a high professional level. The best specialists work in sanatoriums in Russia, which offer various methods of effective treatment for diabetes. Sanatoriums for the treatment of type 2 diabetes aim to reduce the patient's weight and stop many complications. Diabetologists works in the sanatorium, choosing individual treatment programs. Initially, for diabetics, a balanced diet and the exclusion of sugar from the diet are created.

To cure diabetes, doctors seek to prescribe mineral water to the patient, certain medications and oxygen therapy. Magnetotherapy and cryotherapy (ro.diabetes-education.net n.d.) are provided for patients with diabetes. A Russian proverb says that a house is made of pies, not walls, to emphasize the importance of this dessert, and according to a custom, guests should be

greeted with bread and salt, as it is believed that bread has always symbolized prosperity and the health of the country (the Russian word *khlebosol'stvo* - which means hospitality - consists of the terms *khleb* - meaning bread - and *soil* - salt).

If the Italian cuisine is famous for its many pasta and pizza recipes, the Russian one is specific to beetroot salad, caviar, pies and of course, vodka. Very few people know, however, about this liqueur that, in fact, it was brought from Italy in the 15th century.

Romanians have a relatively healthy diet. Older people like the Japanese and Russians prefer meals at fixed hours. Both in Romania, Russia and Japan the number of people with type 2 diabetes is increasing after 70 years. In all these countries there is a program diabetes in Japan, but through its efficient programs and the care of the state it far exceeds the national programs in Romania and Russia. In all these countries we find an aging population, a low birth rate and all these states, especially Japan is clearly concerned about the growth elderly population and declining birth rates.

According to medical statistics, among these countries Romania has the highest number of diabetics, followed by Japan. Russia has the lowest number of diabetics compared to Romania and Russia. This paper can be used as a documentation study for students in the specialization of nutrition and dietetics or masters in Nutrition. It can also be used as teaching material for post-secondary Colleges of Health.

In conclusion, it can be said that the objectives of this paper have been met, the topic being topical because in Romania the prevention, diagnosis and treatment of diabetic neuropathy is deficient, not having a model of treatment and nutrition, as is Japan. An example of healthy nutrition we can have from Russians and Japanese who have very few processed foods, some of them have no additives or E Numbers. Unfortunately, we did not find data published in the literature in Romania and Russia on the existence of studies on nutritional research of patients with diabetic neuropathy.

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