MAIN RISK FACTORS OF OSTEODEFICIENCY IN MODERN SOCIETY

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Purpose. To analyze the leading modified risk factors for osteoporosis in patients with varying degrees of osteodeficiency.

Materials and methods. 37 patients (23 women and 14 men aged 45–67 years) from a risk group for systemic osteoporosis were examined. To study the risk factors for osteoporosis, we used the «Minute Test» developed by the International Osteoporosis Foundation, to estimate the probability of osteoporotic fractures, also we used standardized extended questionnaires: IOF, Osteoporotic Fracture Risk Questionnarie, Adult Osteoporosis Risk Assessment, online calculators FRAX and QFracture. Since the main mechanism for the development of osteoporosis of any type is the negative balance of calcium and vitamin D in the body, we paid special attention to the analysis of products consumed by patients. Instrumental diagnostics of osteoporosis was carried out using ultrasound densitometry (ultrasonic densitometer LUNAR Achilles express, USA, 2008). The diagnosis of osteoporosis was established by the T-criterion, namely, when its value is from –2.5 SD and below; the value of the T-test from –1.1 to –2.4 SD corresponds to osteopenia, the T-value in the range of +2.5 to –1 SD is the norm. We identified a varying degree of osteodeficiency in 83.8% of the examined patients.

Results. Among the examined patients, the leading modified risk factors for osteoporosis were smoking, alcohol abuse, hypodynamia, taking certain medications, insufficient use of foods rich in calcium and vitamin D3. In a detailed analysis of the dietary habits in 29.7% of patients, we identified insufficient intake (including due to intolerance) of dairy products, vegetables, herbs, sea fish, legumes, sesame and nuts. 10.8% of patients were supporters of the modern hypogalactose diet, they deliberately excluded dairy products from their diet.

Possible explanations for vitamin D deficiency in the body of the examined patients were: 18.9% of patients have insufficient sun exposure due to photosensitization or medical contraindications; the use of a small amount of products with a high content of vitamin D (including due to the high cost for the main category of patients).

Studying the eating habits of the examined patients, in 37.8% we found an abuse of some products containing red meat (in the form of sausages), and drinks with a high content of phosphates.

Our patients had other eating habits: eating frozen foods, canned goods, pickles, lard and hydrogenated fats (margarine, spread, mayonnaise). 24.3% of the examined patients indicated excessive salt intake.

The vast majority of patients lead a sedentary lifestyle. Only 1/3 of the respondents are fond of various kinds of sports (as amateurs) or have visited the gym.

Conclusions. The main modifiable risk factors for systemic osteoporosis in the examined patients are certain nutritional and lifestyle features. These include the use of insufficient amounts of dairy products, the conscious rejection of milk due to individual intolerance or as a tribute to a «fashionable» diet. Inadequate exposure to the sun due to various circumstances, addiction to certain foods and drinks that interfere with calcium absorption, excessive salt intake and lack of exercise are also risk factors, which are associated with impaired bone mineral density. In order to improve the effectiveness of measures for the primary prevention of systemic osteoporosis, it is advisable to increase public awareness of modern risk factors for osteoporosis associated with diet and lifestyle.