

Candida, Streptococcus, Staphylococcus, Clostridium perfringens). The composition of the microbiome of the elderly is characterized by an increase in the content of pro-inflammatory microorganisms, whose populations are growing due to the weakening of immune mechanisms. Scientists have shown that the microbiome of long-lived people differs from the adult population and people under the age of 70 years. Changes in the microbiota were associated with an increase in the number of facultative anaerobes, including commensal and pathogenic species, and changes in the number of Firmicutes types, including a decrease in the number of Faecali bacterium prausnitzii. According to experts, the prevention of microbiome disorders from a young age is one of the most important protective measures to improve the quality of life of the older generation.

Conclusions. The richness and diversity of microbiota communities are markers of longevity. Knowledge of the characteristics of the microbiome with age will help solve problems in improving the health of the elderly and longevity.

STUDY OF THE STATE OF CARBOHYDRATE METABOLISM IN PATIENTS WITH ISCHEMIC HEART DISEASE WITHIN THE METABOLIC SYNDROME

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Introduction. An important scientific and practical problem is the study of metabolic syndrome in general and its components due to the high risk of cardiovascular complications in this group of patients.

Aim. Study of the features of changes in carbohydrate metabolism in patients with coronary heart disease (CHD) within and without metabolic syndrome.

Materials and methods. We examined 32 patients with coronary heart disease, of which 22 (68.8%) patients had the disease within the metabolic syndrome, and 10 patients (31.2%) had no manifestations of metabolic syndrome. All patients were hospitalized in the therapeutic departments of the 2nd city clinical hospital of Kharkov. The age of patients ranged from 45 to 73 years (mean age 59.18 ± 1.28 years). The state of carbohydrate metabolism was assessed by blood glucose and insulin levels, the levels of which were determined by bilateral enzyme-linked

immunosorbent assay using the Insulin-ELISA kits (DRG, USA) on an empty stomach and after glucose loading. Averages were determined by Student's t-test.

Results and discussion. Analyzing metabolic parameters by groups of patients, we found a statistically significant difference in carbohydrate metabolism. Thus, the average fasting blood glucose level was higher by 0.89 mmol / l (15.8%) in people with coronary heart disease within the metabolic syndrome than in patients with coronary heart disease without metabolic syndrome. Also, a statistically significant difference was maintained when compared with the control group, where the average blood glucose was 0.9 mmol / l (16%) lower than in patients with coronary heart disease within the metabolic syndrome ($p < 0.001$). Among our patients with coronary heart disease within the metabolic syndrome, insulin resistance (HOMA index exceeded 3.0) was found in a statistically significant higher number of cases (40.5% more often) than in the group of patients with coronary heart disease without metabolic syndrome, $p < 0.05$.

Conclusion. The combination of coronary heart disease with metabolic syndrome (compared with coronary heart disease without metabolic syndrome) leads to significant disorders of carbohydrate metabolism and to increase the frequency of insulin resistance, which may be an additional factor in the progression of cardiovascular pathology in these patients.

ВПЛИВ КИШКОВОЇ МІКРОФЛОРИ НА НАСТРІЙ

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Вступ. Мікрофлора людини відрізняється багатим видовим складом і величезною кількістю (1×10^{14}), а найбільш густо населений біотоп – це травний тракт. Вчені тільки починають по-справжньому усвідомлювати роль нашої мікробіоти. І самим разючим відкриттям, безсумнівно, є зв'язок між порушеннями кишкової флори і психічними розладами, такими як тривога, депресія, біполярні розлади, шизофренія або навіть розлад нервової системи, таке як аутизм. Однак поки ще занадто рано говорити, що це причина, а не наслідок цих розладів. Проте, гіпотеза про те, що мікробне співтовариство, розташоване в нашому кишечнику, частково визначає наш настрій і поведінку, заслуговує серйозного дослідження.