INTERNATIONAL MULTIDISCIPLINARY JOURNAL FOR RESEARCH & DEVELOPMENT
SJIF 2019: 5.222 2020: 5.552 2021: 5.637 2022:5.479 2023:6.563
eISSN 2394-6334 https://www.ijmrd.in/index.php/imjrd Volume 10, issue 11 (2023)

ORIGIN AND PREVENTION OF METABOLIC SYNDROME

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ABSTRACT: In this article, we will learn about metabolic syndrome, the diseases it causes, the manifestations of metabolic syndrome, treatment and prevention. The purpose of this article is to talk about measures to prevent and treat metabolic syndrome among the population.

KEY WORDS: Metabolic syndrome, lipid, purine, glucose, hepatosis, insulin, diet, cholesterol, triglyceride, hyperinsulinemia.

Metabolic syndrome is a set of clinical and laboratory signs that occur with metabolic diseases. Pathology is based on insulin immunity or insulin resistance of cells and peripheral tissues. When sensitivity to the hormone responsible for glucose uptake is lost, all processes in the body begin to occur abnormally. Metabolism of lipids, purines, carbohydrates is disturbed in patients. The level of glucose in the blood rises and there is a deficiency in the cells. At the end of the 20th century, American scientists combined various metabolic changes in the human body into one syndrome. Professor Riven, summarizing the results of other authors' research and his own observations, called the pathology "Syndrome X". He proved that insulin resistance, visceral obesity, hypertension and myocardial ischemia are signs of one pathological condition. The main cause of the syndrome is heredity. Wrong lifestyle, stress and hormonal imbalance play an important role in the development of the disease. Hypodynamic people who prefer fatty and high-carbohydrate foods are at high risk of developing pathology. High-calorie foods, personal transport and quiet working vehicles are exogenous causes of metabolic diseases in most of the population of developed countries. Today, the widespread metabolic syndrome is compared to an epidemic or even a pandemic. The disease most often affects men aged 35-65. It depends on the characteristics of the hormonal background of the male body. In women, the disease develops after the onset of menopause, when the production of estrogen stops. Isolated cases of pathology are recorded among children and young people, but recently it was noted that the incidence rate in this age group has increased. The diagnosis of the syndrome is based on the information obtained by the endocrinologist during the general examination of the patient. Indicators of body mass index, waist circumference, lipid spectrum and blood glucose are of great importance. Among the instrumental methods, the most informative: ultrasound examination of the heart and blood pressure measurement. Metabolic syndrome is difficult to treat. Treatment consists of following a special diet that allows you to normalize body weight, as well as taking drugs that disrupt metabolism. Without timely and adequate therapy, life-threatening complications develop: atherosclerosis, stroke, heart attack, impotence, infertility, fatty hepatosis, gout. Metabolic syndrome is an urgent medical problem caused by the unhealthy lifestyle of the majority of the population. In order to avoid severe complications of pathology, it is necessary to eat properly, normalize body weight, exercise, and quit alcohol and smoking. Currently, the disease is not completely cured, but most of the changes that occur in the patient's body are reversible. Competent therapy and a healthy lifestyle will help to stabilize the general condition. Reducing insulin sensitivity is an evolutionary process that allows the body to survive starvation. Modern people who eat high-calorie foods and have a genetic predisposition are at risk of developing nutritional obesity and metabolic syndrome. In children, the causes of the syndrome are eating habits, underweight, and social and economic living conditions. Adolescents suffer from pathology in the absence of a balanced diet and sufficient physical activity. Insulin is a hormone

that performs a number of vital functions, the main of which is the uptake of glucose by body cells. It binds to receptors located on the cell wall and ensures the entry of carbohydrates from the extracellular space into the cell. When the receptors lose sensitivity to insulin, glucose and the hormone itself accumulate in the blood at the same time. Thus, insulin resistance is the basis of pathology that can occur for a number of reasons. Insulin action is normal. With insulin resistance, the cell does not respond to the presence of the hormone and the channel for glucose does not open. Insulin and sugar remain in the blood. When you eat a large amount of simple carbohydrates, the concentration of glucose in the blood increases. It will be more than the needs of the body. Muscle glucose is consumed during active work. If a person leads a sedentary lifestyle and at the same time eats a high-carbohydrate diet, glucose in the blood accumulates, and the cells limit its consumption. The pancreas compensates for the production of insulin. When the amount of the hormone in the blood reaches critical numbers, cell receptors stop sensing it. This creates insulin resistance. Hyperinsulinemia, in turn, promotes obesity and dyslipidemia, which have a pathological effect on blood vessels. How is the syndrome manifested?-The pathology develops gradually and is manifested by symptoms of diabetes, arterial hypertension and cardiovascular diseases. Heart symptoms, tachycardia, shortness of breath are added to the general symptoms of asthenia of the body. There are changes in the digestive system, which are manifested by constipation, bloating, colic. Eating sugary foods reduces your mood. People with the syndrome have a clear layer of fat on their abdomen, chest, and shoulders. Their fat accumulates around the internal organs. This is what is called visceral obesity, which leads to dysfunction of the affected structures. Adipose tissue also performs an endocrine function. It releases substances that cause inflammation and change the rheological properties of blood. Abdominal obesity is diagnosed when waist length reaches 102 cm in men and 88 cm in women. An external sign of obesity is striae - burgundy or cyanotic narrow wavy lines of various widths on the skin of the abdomen and hips. Red spots on the upper body are a manifestation of hypertension. The patient has nausea, tremors and headache, dry mouth, hyperhidrosis at night, dizziness, trembling of the extremities, flickering of "flies" before the eyes, incoherence of movements. Diagnosis of metabolic syndrome-Diagnosis of metabolic syndrome causes certain difficulties among specialists. This is due to the lack of specific symptoms that indicate the presence of a certain disease. This includes a general examination of the patient by an endocrinologist, collection of medical history, additional consultation with a nutritionist, cardiologist, gynecologist and andrologist. Doctors determine whether the patient has a genetic predisposition to obesity, how his body weight has changed during his lifetime, what his blood pressure is usually, whether he suffers from cardiovascular diseases, and what conditions he lives in. Patients with the syndrome have a low life expectancy. should follow a carbohydrate diet. Severe calorie restriction gives good results in the fight against excess weight, but not everyone can withstand this regime. Patients experience weakness, impotence and bad mood. Often there is a violation of greed and itching. Therefore, animal proteins should become the basis of the diet. Inadequate consumption of carbohydrates - the main source of energy, leads to the consumption of fatty compounds that contribute to effective weight loss. In severe cases, when there is no effect of conservative treatment of obesity, surgery is performed - gastric or biliopancreatic maneuver. Physical activity is indicated for patients without diseases of the musculoskeletal system. The most useful are running, cycling, swimming, walking, dancing, aerobics, strength training. For people with limited health, it is enough to exercise every morning and take a walk in the fresh air. Obesity, angina pectoris, and hypertension cause millions of premature deaths. These pathologies occur against the background of metabolic syndrome. Most of the world's population is currently overweight or obese. It should be remembered that more than 50% of people die from coronary insufficiency associated with metabolic diseases. Patients

with metabolic syndrome usually have low blood levels for cholesterol and triglycerides. There is little "good" cholesterol in the blood, and "bad" cholesterol, on the contrary, rises. Triglyceride levels also increase. All this means that the vessels are affected by atherosclerosis, a heart attack or stroke is just around the corner. Blood tests for cholesterol and triglycerides are collectively known as a "lipid spectrum." Doctors like to talk and write, they say, I will order you to check the lipid spectrum. Or worse, the lipid spectrum is unfavorable. Now you know what it is. To improve the results of blood analysis for cholesterol and triglycerides, doctors usually prescribe a low-calorie diet and / or statin drugs. At the same time, they look smart and try to look impressive and convincing. However, starvation diets do not help at all, and pills help, but cause significant side effects. Yes, statins improve blood cholesterol levels. But it is not true whether they reduce death ... there are different opinions ... But it is possible to solve the problem of cholesterol and triglycerides without harmful and expensive pills. Moreover, it can be easier than you think. A low-calorie diet usually does not normalize blood cholesterol and triglycerides. In addition, some patients have worse test results. This is because a low-fat "starvation" diet is high in carbohydrates. Insulin converts the carbohydrates you eat into triglycerides. But I just wish these triglycerides were lower in the blood. Your body does not tolerate carbohydrates, so metabolic syndrome has developed. If you don't take measures, it will easily turn into type 2 diabetes or suddenly end with a cardiovascular disaster. They can't walk around the bush for a long time. Perfectly solves the problem of triglycerides and cholesterol. The level of triglycerides in the blood normalizes after 3-4 days! Take the tests and see for yourself. Later, after 4-6 weeks, cholesterol will improve. Take a blood test for cholesterol and triglycerides before starting "New Life" and then again. Be sure that a low-carb diet really helps! At the same time, it normalizes blood pressure. It prevents heart attacks and strokes, and without the feeling of hunger. Supplements for blood pressure and heart complement the diet well. They cost money, but the cost will pay off because you'll feel happier.

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