

*Sažeci radova / Abstracts***METABOLIC SYNDROME****Summary**

Metabolic syndrome is a cluster of disorders that include hyperlipidemia, inadequate insulin resistance, hypertension, and abdominal type obesity. Patients who suffer from this syndrome have an increased risk for heart disease and blood vessel disease, stroke and type II diabetes. The world's leading healthcare institutions also disagree on the exact definition of this organization poremećaja. NCEP (National Cholesterol Education Program) defines metabolic syndrome as a situation in which there are three or more of the following criteria: fasting plasma glucose greater than 6.1 mmol / L, serum triglycerides higher than 1.7 mmol / L, serum HDL cholesterol less than 1.04 mmol / L, RR greater than 130/85 mmHg, waist circumference of 102 cm or > 94 cm in men insensitive to insulin. The World Health Organization defines the metabolic syndrome as a condition in which elevated levels of blood glucose (various higher than 6.0 mmol / L) together with two or more of the following: abdominal obesity type, dyslipidemia and hypertension. Scientifically proven genetic and acquired causes of this syndrome. Acquired causes include obesity, physical inactivity and a high proportion of carbohydrates in the diet (more than 60%). The genetic causes have not been precisely defined with the exception of diabetes mellitus. Stress is considered one of the causes as it disturbs the hormonal balance and increases the tendency to accumulate fat in the abdomen and dyslipidemia. The thickness of the characteristics of this syndrome, it is typical, central or abdominal obesity, where fat accumulates mainly around struka. Body mass index, BMI (calculated by dividing weight in kilograms and height in meters squared - kg / m²) in patients with metabolic syndrome increased from 25 first consequence of metabolic syndrome is weaker response of cells to insulin. It develops insulin resistance, sugar can not enter the cells and increases the level of sugar in the blood, increasing the level of insulin and creates a vicious circle, which sooner or later leads to type 2 diabetes. Metabolic syndrome has become one of the most important cause of atherosclerosis, resulting in heart disease and vascular diseases: angina pectoris, myocardial infarction, stroke and peripheral vascular disease. He also demonstrated a significant association of metabolic syndrome and mental disorders: depression, anxiety and neurosis, and it has been proven that people who suffer from mental disorders more likely to develop metabolic syndrome. The prevalence of metabolic syndrome in the world is high and continues to grow, among adults in the National Health and Nutrition Surveys USA amounted to 24.1% between 1988 and 1994 and 34.5% between 1999 and 2002, while the National Cholesterol Education Program Adult Treatment Panel III of 2005 states that the number of people with Down syndrome increases dramatically to 39% to 46% in all ethnic and age groups. Half an hour of exercise every day or an hour every other day reduces the risk of many diseases, and brisk walking, cycling and running are aerobic activity recommended for prevention of metabolic syndrome, along with a healthy diet that includes a large proportion of fiber, lots of fruits and vegetables, along with blood pressure control and regular visits to the doctor. The main therapeutic goals are: reducing excess weight, the implementation of a controlled physical activity and, treating risk factors or high blood pressure, clotting disorders and dislipidemija. Metabolic syndrome is associated with increased risk of stroke and heart attack and vascular disease as evidenced by numerous studies. For example, in a large study Smart Study Group in the United States in 2004, the prevalence of the metabolic syndrome in this study population was 45% of patients, in patients with peripheral arterijskon disease in 57% of patients with coronary heart disease in 40% of subjects, auu patients with stroke in 43% of patients. It can be concluded that the metabolic syndrome known as an independent risk factor for stroke, and may be due to genetic factors and unhealthy lifestyles.

Keywords: metabolic syndrome, insulin resistance, waist circumference, hypertension, obesity, hyperlipidemia