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METABOLIC SYNDROME AND ITS RISK FACTORS

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There are several definitions which are suggested to explain how metabolic syndrome is appeared. According to modern scientific information G. Reaven was one of the first who tried to explain the term of "syndrome X" or "metabolic syndrome" in 1988. He found out such symptoms as hyperinsulinemia, tissue-induced insulin resistance (IR), impaired glucose tolerance, high density of lipoprotein, hypertriglyceridemia that lowers cholesterol (HDL cholesterol) and arterial hypertension (AG) were composition of metabolic syndrome. However, considering the metabolic syndrome it started from earlier times. In 1966 J. Camus revealed that Hyperlipidemia, 2nd ed mutual cause of type diabetes and gout diseases had an interrelation. He called this type of metabolic disorder as "metabolic trisyndrome" (trisyndrome metabolique). In 1968, N. Mehnert and N. Kuhlmann explained that in hypertension and diabetes mellitus the factors and causes of metabolic disorders are related and discovered new syndrome "abundance syndrome". In 1988 M. Hanefeld and W. Leonard suggested to call different metabolic disorders similarities as " Metabolic syndrome ". After that in 1989 N.M. Kaplan described Metabolic syndrome concept as abdominal obesity and clinical metabolic disorders and lead the theories that destruction of impaired glucose tolerance, arterial hypertension, obesity and delayed dyslipidemia, called it a "deadly quartet". Consideration of The main pathogenetic mechanism of this syndrome, usually the term "insulin resistance syndrome" is also used as a synonym [1, 2].

Metabolic syndrome makes combination - pathological conditions such as abdominal obesity, dyslipidemia, arterial hypertension, insulin resistance, and in starvation there is a rise of glucose degree in the blood. The metabolic syndrome is the dangerous factor of 2nd type diabetes and formation of cardiovascular disease. In some cases, insulin resistance (insulin resistance) is cause of other symptoms, unlike other conditions, obesity is the main reason insulin resistance. A result of recently conducted studies chronic flu is the main reason formation of metabolic syndrome and last pathophysiology [1, 3].

In the 21st century atherosclerosis (arterial hypertension, myocardial infarction, stroke) took the first place among reasons of diseases related to cardiovascular disease, mortality and disability. It is one of the leading causes of cardiovascular disease. Cardiovascular mortality and morbidity Hypertension (AG) should be associated with elevated risk factors as a result of exposure. There are more than 200 kinds, the most dangerous one among them are arterial hypertension, dyslipidemia, obesity, diabetes mellitus and hyperinsulinemia. During recent decades many patients are suffering with metabolic syndrome so the syndrome has known as the "epidemic of developed countries". 15-25% of the world's population who is over 30 years old suffer from metabolic syndrome, 74% of patients with arterial hypertension are suffering from it in the Russian Federation, It occurs in 90% of patients with impaired tolerance and diabetes mellitus [4].

Insulin resistance's purpose makes appearing and developing of metabolic syndrome's mechanism. The basis of insulin resistance disorders mutation of the gene encoding (pre-receptor mechanism) causes autoimmunity (production of antibodies to insulin and insulin

receptors (for this purpose), changing of insulin molecule, the movement of the insulin molecule from the number of insulin receptors are also can be hormonal and molecular factors. Insulin is an anabolic hormone whose function is to control glucose utilization and consists of synthesizing glycogen. However, regulating metabolism its function goes beyond regulating blood glucose levels [4].

Among the population in the last decades of the 20th century and the beginning of the 21st century atherosclerosis, hypertension, 2nd type of diabetes, obesity Pathologies were been found. The above-mentioned pathologies are metabolic and consequences of insulin resistance syndromes. One of the clinical signs of this is visceral obesity, as well as research from leading clinics It is one of the main causes of the symptoms and excessive sweating of these two syndromes are chronic diseases. The prevalence of these syndromes in the population is high As a result, they have been labeled an "epidemic of missing diseases." According to the BSGG's report, there are approximately 1.7 billion people worldwide who suffers from body weight obesity. According to this index, the USA, Germany and Canada takes top places. 34% of adult people suffer from extra body weight and 27% suffer from obesity. In the last 10 years obesity has increased by an average of 75% all around the world. There is a possibility that 40% of men and 50% of women can suffer from obesity by 2025 [5].

According to modern researches rising of Metabolic syndrome in the general population, will lead to an increased risk, especially of kidney stone diseases, cardiovascular diseases, with sclerosis and their nephrolithiasis. According to the results, the population of the USA suffers from this systemic disease and it can be reason of pathological atherosclerosis, especially in people with kidney stones, it is noted that the risk of cardiovascular diseases is increased. Last years has proven there are many incidences of kidney disease among youth generation and it is associated with subclinical atherosclerosis [6].

In the result we consider said above then patients with metabolic syndrome are at risk of developing functional disorders of internal organs and this will lead to increased risks. In this situation we should find out patients with metabolic syndrome and their treatment would become one of our main duty.

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