

Doc. dr Djuro Macut: METABOLIC CHARACTERISTIC OF POLYCYSTIC OVARY SYNDROME

Abstract: Polycystic ovary syndrome (PCOS) is the most common endocrinopathy in women of the reproductive period. It represents association of the hyperandrogenism and ovulatory abnormality in the presence of polycystic ovaries diagnosed by the ultrasound. One of the actual pathophysiological theories of the PCOS development include existence of insulin resistance and hyperinsulinemia or its association to the characteristics of the metabolic syndrome. It was shown a relative risk of 5.91 for the cardiovascular morbidity in women with PCOS. In this group of women, an increased risk for the development of subclinical atherosclerosis is potentiated as the women is approaching perimenopause. Insulin resistance in PCOS is supposed to be tissue-specific and was shown on the level of liver, muscle tissue and fat tissue, and is related to the postreceptor mechanisms. Increased risk for type 2 diabetes in PCOS is caused by insulin resistance, β cell dysfunction, centripetal obesity, previous gestational diabetes and an existence of familial predisposition for type 2 diabetes. Dyslipidemia represents the most common metabolic abnormality in PCOS varying in types and degree of the abnormality. Prevalence of the metabolic syndrome in PCOS women is estimated to be up to 46%. High prevalence of the metabolic syndrome in women with PCOS younger than 40 years could be related to the confirmed overt atherosclerosis and a seven-fold increased risk for the myocardial infarction. It was shown that 91% women with PCOS has one, mainly lipid abnormality from the frame of the metabolic syndrome, 69% have two or more abnormalities while only 9% doesn't have any confirmed abnormalities. Recently was shown that 85% of women with PCOS established earlier in life, have in postmenopausal period characteristic dyslipidemia of the metabolic syndrome with high triglycerides and/or low HDL-cholesterol. These women are on increased risk for the cardiovascular events.

Key words: polycystic ovary syndrome, insulin resistance, type 2 diabetes, dyslipidemia, metabolic syndrome, atherosclerosis, cardiovascular risk

