



Tereshkin K.I.

INFLUENCE OF APELIN ON THE ESSENTIAL HYPERTENSION IN COMBINATION WITH OBESITY

Kharkiv National Medical University, Kharkiv, Ukraine

Introduction. Diseases of the cardiovascular system take the first place in the structure of common sickness rate that is more than 8% of all visits to a doctor for a medical care. Thus, they are among the main causes of mortality and disability of Ukraine population and around the world.

According to WHO among the cardiovascular system diseases the first place takes the essential hypertension (EH) (33.4%). It represents 90-95% of all patients with arterial hypertension (WHO, 2011). In 2010 in Ukraine the prevalence of all forms of hypertension in adults (18 and older) averages 46.8%. Severity of hypertension is caused by many different etiological, pathogenetical factors and possible comorbidities. One of the most important factors is the metabolic syndrome - the main component of which is obesity. Obesity - is not only the unprofitable volume of adipose tissue, but also a complex of the humoral and metabolic disorders.

Results. Lately was found and proved that adipose tissue is not only a reservoir of spare energy, but is also considered as an active endocrine organ. Adipocytes release many biologically active substances that are involved in the regulation of vascular tone: angiotensinogen, angiotensin II, interleukins, prostaglandins, estrogen, insulin-like growth factor-1, tumor necrosis factor - α , plasminogen activator inhibitor-1 and others. There was discovered a new adipokine α apelin in 2005, which is synthesized in adipose tissue, kidney, brain and heart. Apelin is a peripheral vasodilator and has a positive inotropic effect. In patients suffering from hypertension, the level of circulating apelin is significantly reduced and goes down regardless of severity of violations of left ventricular systolic and diastolic function. In experimental conditions it was proved that the level of apelin in case of fasting and obesity may be increased. It was studied that in animals the apelin may decrease blood pressure by inhibiting the synthesis of the nitric oxide inhibitor. Despite the fact that apelin and its receptor are widely expressed in tissues, the pathophysiological effects of the apelin mainly remains unclear.

Conclusion. Thus, the detection of the influence of apelin level in patients with hypertension combined with obesity, study of carbohydrate, lipid metabolism and anthropometric indicators will help not only in correct and timely diagnosing, but also will help to find new principles and patterns of treatment of this severe pathology.

Trifonova N.S.

REMODELING OF HEART IN PATIENTS WITH CHRONIC HEART FAILURE AND METABOLIC SYNDROME

Kharkiv National Medical University, Kharkiv, Ukraine

Introduction. Heart failure is a serious problem in modern medicine as the end result of many cardiovascular diseases that they have inflammatory or