**The aim of the study** was to evaluate apelin-12 in obese patients in relation to the imdices of visceral obesity.
**Methods.** A total of 167 individuals aged 40-70 years without diagnosed cardiovascular diseases (CVD) were studied. All patients were divided according to the degree of obesity: group 1 with excessive body weight consisted of 27 individuals, group 2 with class 1 obesity — 108 individuals, group 3 with class 2 obesity — 32 individuals. The control group consisted of 27 healthy subjects. Cardiovascular risk (CVR) was assessed using the SCORE-2 scale. The examination included assessment of anthropometric parameters; determination of lipids, glucose, apelin-12 in blood serum; echocardiography; assessment of body composition by bioimpedance analysis. To evaluate the state of lipid metabolism, we also used special highly specific indices such as: Kahn's lipid accumulation products (LAP); Amato's visceral obesity index (VOI), fatty liver index (FLI) and hepatic steatosis index (HSI).
**Results.** The study of apelin-12 levels with the parameters of visceral adipose tissue (VAT) dysfunction depending on CVR showed correlations, which allows to predict the progression of visceral obesity by using additional markers. Assessment of such markers as apelin-12 for prediction of lipid metabolism disorders progression, VAT dysfunction together with assessment of estimated VAT indices (VOI, % of adipose tissue, visceral fat level according to bioimpedance analysis, FLI, HSI, epicardial adipose diseastissue thickness) can be included in the algorithm of patient examination for assessment of VAT dysfunction and CVR prevention.
**Conclusion.** Apelin-12 can be used to assess and predict the progression of lipid metabolism disorders, VAT dysfunction, and together with the assessment of estimated VAT indices (VOI, % adipose tissue, visceral fat level according to bioimpedance analysis, HSI and FLI) may be included in the algorithm of patient examination to assess VAT dysfunction and to prevent CVR.