Hypothesis: NT-proBNP level - marker of heart failure (HF) and left ventricular remodeling in patients with abdominal obesity (AO). Material and methods: NT-proBNP level and left ventricular mass index (LVMI) by echocardiography were determined in 70 females (45.1±0.8 years old) with AO (IDF, 2005). 46.4% of patients were hypertensive. None of them had clinical symptoms of HF. 12 normotensive non-obese (NO) subjects were examined. NT-proBNP level was evaluated by electrochemiluminescent immunoassay. Results: NT-proBNP level didn’t differ in females with AO and in NO-subjects (67.0±17.3 pg/ml and 47.8±9.8 pg/ml; p>0.05). 46.4% of females were hypertensive. LVMI was 100.9±1.5 g/m², 45% of patients with AO had LV hypertrophy. LVMI in females with AO and hypertension (HP) was higher versus females with AO and without HP (106.5±6.7 g/m² and 87.5±3.8 g/m², p=0.01). Correlations were revealed between NT-proBNP and next parameters: LVMI (r=0.8; p=0.0001), body mass index (BMI) (r=0.4; p=0.001), waist circumference (WC) (r=0.4; p=0.005), systolic blood pressure (SBP) (r=0.4; p=0.002), diastolic BP (DBP) (r=0.4; p=0.002). We revealed correlations between LVMI and BMI (r=0.7; p=0.0001), WC (r=0.7; p=0.0001), SBP (r=0.6; p=0.002), DBP (r=0.4; p=0.002). Conclusion: NT-proBNP level didn’t differ between obese and non-obese females. Left ventricular hypertrophy was found in females with abdominal obesity and hypertension.