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Myocardial changes in patients with chronic heart failure and obesity

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Actuality: Heart failure is a major health problem that is increasing inscope. Despite recent therapeutic advances, morbidity and mortalityafter the onset of heart failure remain substantial. Consequently,prevention of heart failure through identification and managementof risk factors and preclinical phases of the disease is a priority.In this context, several studies have evaluated body-mass index(the weight in kilograms divided by the square of the heightin meters) as a risk factor for left ventricular remodelingand overt heart failure. In these investigations, obesity hasbeen consistently associated with left ventricular hypertrophyand dilatation, which are known precursors of heart failure.

Purpose:we investigated the relation of body-mass index with the riskof heart failure in a community-based sample and devoted to increasing of patients with chronic heart failure and obesity based on insulin-like growth factor -1, brain natriuretic peptide role on myocardial remodeling.

Methods and materials: materials of research were patients with chronic heart failure and obesity syndrome, which were divided into 2 groups: 1- patients with chronic heart failure and obesity (30) and 2- patients with chronic heart failure without obesity. At each examination, a medical history was taken, a physicalexamination (including anthropometric measurements and measurementof blood pressure) was performed, a 12-lead electrocardiogram and echocardiography were obtained, and risk factors for cardiovascular disease wereassessed. Height and weight were measured according to a standardizedprotocol. The body-mass index was calculated and was used asan estimate of overweight and obesity.

Results: Individuals, who suffer from chronic heart failure and abdominal obesity, with lower brain natriuretic peptideand higher insulin-like growth factor -1, index HOMA levels had concentric remodeling of myocardium. Even if you're entirely healthy otherwise, being obese (or merely overweight) still places you at risk of developing heart failure.