

Systolic and diastolic heart failure: similarities and differences

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Heart failure (HF) is defined as an inability of the heart to deliver oxygen at a rate to fulfill the metabolic requirements of the tissues. Over the last decades, the clinical course of different heart disease has been changed. The mortality from acute myocardial infarction has significantly decreased — patients survive, but they often have the residual left ventricular dysfunction and the subsequent development of HF syndrome. Also, the overall life expectancy has become increasingly longer. These changes signed out HF as an epidemic with strong public health implications that are associated with significant mortality, morbidity and healthcare expenditures. HF is nowadays becoming the primary cause of death in the elderly population.

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Although the impaired systolic function of the heart with low cardiac output (HF with reduced ejection fraction, HF-REF) is still considered to be the leading form of HF, impaired left ventricular filling in diastole with preserved systolic function can also lead to symptoms of heart failure and is usually defined as HF with preserved ejection fraction (HF-PEF).

According to the available data, almost a half of the patients with symptoms of HF are found to have normal or nearly normal ejection fraction. Despite the high prevalence, HF-PEF pathogenesis and pathophysiology has not been sufficiently elucidated and no effective treatment has been identified.

The scope of the research is to get an overview of the available literature regarding HF with a special emphasis on the similarities and differences between diastolic and systolic forms of the syndrome, early diagnosis and potential new therapeutic targets.

KEYWORDS: heart failure, preserved ejection fraction, diastole.

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