

How to Manage Stable Heart Failure with Recovered or Improved Ejection Fraction

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The Definition of HF with Recovered or Improved Ejection Fraction

Heart failure with reduced ejection fraction (HFrEF) is generally known as left ventricular ejection fraction (LVEF) $\leq 40\%$. Heart Failure with recovered ejection fraction (HFrecEF) is defined as current LVEF $>40\%$ but any previously documented LVEF $\leq 40\%$ according to recent study of Kalogeropoulos et al. Our group described left ventricular function recovery (LVFR) as LVEF $>50\%$ in previously $<45\%$ in patients with dilated cardiomyopathy.

Management of HFrecEF

Medical adherence and compliance may be the most important in management of HFrecEF, because a number of patients experience recurrence of LV dilation and decreased LVEF after arbitrary cessation of medication. LVEF can be normalized after six to twelve months of guideline-based medication up to over 60%, however we found that global longitudinal peak systolic strain by echocardiographic examination usually do not recover to normal range and so does peak VO_2 in cardiopulmonary exercise test. Further investigation of the reason for this is warranted.

Reference

- Kalogeropoulos AP, Fonarow GC, Georgiopoulou V, Burkman G, Siwamogsatham S, Patel A, Li S, Papadimitriou L, Butler J. Characteristics and Outcomes of Adult Outpatients With Heart Failure and Improved or Recovered Ejection Fraction. *JAMA Cardiol.* 2016 Aug 1;1(5):510-8.
- Nadruz W Jr, West E, Santos M, Skali H, Groarke JD, Forman DE, Shah AM. Heart Failure and Midrange Ejection Fraction: Implications of Recovered Ejection Fraction for Exercise Tolerance and Outcomes. *Circ Heart Fail.* 2016 Apr;9(4):e002826.
- Cho JY, Kim KH, Song JE, Kim JE, Park H, Yoon HJ, Yoon NS, Hong YJ, Park HW, Kim JH, Ahn Y, Jeong MH, Cho JG, Park JC. Predictors of Left Ventricular Functional Recovery and Its Impact on Clinical Outcomes in Patients with Newly Diagnosed Dilated Cardiomyopathy and Heart Failure. *Heart Lung Circ.* 2017 accepted.