

Deterioration in Left Ventricular Systolic Function in Heart Failure With Preserved and Midrange Ejection Fraction: Don't Miss Coronary Artery Disease



I read with great interest the article by Kalogeropoulos et al which reports outcome in patients with heart failure and preserved ejection fraction according to changes in left ventricular ejection fraction during follow-up.¹ The authors reported that deterioration in left ventricular systolic function is not uncommon, is related to uncontrolled hypertension, and is linked to adverse outcome. Accordingly, it is of crucial importance to identify other potential factors that contribute to decline in left ventricular ejection fraction in this setting, with the aim to implement targeted therapeutic interventions.

Occult coronary artery disease is another comorbid condition that could contribute to deterioration in left ventricular systolic function in heart failure with preserved and midrange ejection fraction. In the study by Kalogeropoulos et al, the prevalence of coronary artery

disease was less than 50% and was much lower than reported in clinical studies with angiographic approach (70% to 80%).^{2,3} Furthermore, occult coronary artery disease is common in hypertensive patients with heart failure and preserved ejection fraction without clinical, electrocardiographic, and biochemical evidence of myocardial ischemia.⁴ Consequently, asymptomatic coronary artery disease could have been missed in a significant proportion of patients in the work by Kalogeropoulos et al according to the diagnostic criteria that were used. In one landmark clinical study, coronary artery disease was reported to be associated with greater decline in left ventricular ejection fraction and higher mortality in heart failure with preserved ejection fraction, and complete revascularization was associated with less deterioration in left ventricular systolic function and lower mortality.² Patients with heart failure and preserved or midrange ejection fraction, especially those who experience a decline in ejection fraction over time, are therefore legitimate candidates for optimal, aggressive screening for uncontrolled hypertension and coronary artery disease, with the aim to improve targeted therapeutic management and outcome.

Disclosures

The author has no conflicts of interest to disclose.

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