

Cardiovascular medicine



Prognostic significance of the HFA-PEFF score in patients with heart failure with preserved ejection fraction

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Abstract

Our study aimed to test the prognostic ability of the HFA-PEFF score for the diagnosis of heart failure with preserved cardiac function (HFpEF). In PURSUIT-HFpEF, a prospective, multicenter, observational study conducted at 26 Osaka University-affiliated hospitals, data from 871 patients with acute decompensated heart failure were collected and followed for an average of 399 days. The HFA-PEFF score, calculated based on discharge data, was evaluated to predict risk of all-cause mortality and heart failure rehospitalization. The results showed that the group of patients with a high HFA-PEFF score (6 points) had a significantly higher risk of the primary endpoint than the group with a low score (2-5 points). This indicates that the HFA-PEFF score is a valid tool for predicting the prognosis of patients with HFpEF.

Background & Results

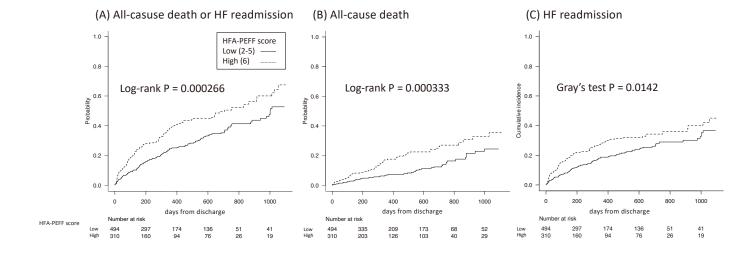
The Heart Failure Association (HFA) of the European Society of Cardiology has introduced a new comprehensive diagnostic algorithm of heart failure with preserved ejection fraction (HFpEF). The central component is the HFA-PEFF score, a scoring system that combines echocardiographic parameters and natriuretic peptide test results. The score is based on three domains: functional, morphological, and biomarker, which are closely related to left ventricular filling pressures The HFA-PEFF score indicates the severity of HFpEF and serves as a diagnostic tool. Although this scoring system was developed as part of a diagnostic algorithm, it has

been hypothesized that it may also be a useful tool for predicting clinical outcomes. Our study aimed to evaluate the prognostic significance of the HFA-PEFF score on the clinical outcome of patients with HFpEF through a large prospective multicenter registry.

The PURSUIT-HFpEF study was a prospective, multicenter, observational study conducted at 26 Osaka University-affiliated hospitals (N=871) to collect clinical, echocardiographic, and outcome data from patients with acute decompensated heart failure with left ventricular ejection fraction >50%. Kaplan-Meier analysis showed a significant difference in risk of the primary endpoint between patients with a low HFA-PEFF score (score 2-5) and those with a high HFA-PEFF score (score 6). (adjusted hazard ratio 1.446, 95% confidence interval [1.099-1.902], P = 0.008). This study suggests that the HFA-PEFF score is not only a diagnostic tool, but is also clinically useful as a practical prognostic tool. This scoring system could be used to more accurately predict the post-discharge risk of HFpEF patients and provide important information for developing an appropriate treatment plan.

Significance of the research and Future perspective

This study highlights the value of the HFA-PEFF score not only as a diagnostic tool, but also as a prognostic tool. Each domain of the score is noninvasive and can be easily assessed in routine clinical practice, which may be helpful in determining post-discharge treatment strategies. The results of this study need to be revalidated by further studies in other countries.





Sotomi, Yohei; Iwakura, Katsuomi; Hikoso, Shungo et al. Prognostic significance of the HFA-PEFF score in patients with heart failure with preserved ejection fraction. ESC Heart Fail. 2021;8(3):2154-2164. doi: 10.1002/ehf2.13302