Abstract: P2609

H2FPEF score as a prognostic value in HFpEF patients

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Topic(s):
Chronic Heart Failure – Epidemiology, Prognosis, Outcome

Citation:

Background:
The H2FPEF score is recognized as a simple method to diagnose heart failure (HF) with preserved left ventricular ejection fraction (HFpEF).

Purpose:
We investigated the value of the H2FPEF score in predicting subsequent cardiovascular events in HFpEF patients.

Methods:
This study was a retrospective, single-center, observational study. We calculated the H2FPEF scores for 404 consecutive HFpEF patients. Subjects were subdivided into low- (0–3), intermediate- (4–6), and high-score (7–9) groups and followed for 50-months. The primary and secondary endpoints were composite cardiovascular/cerebrovascular events (cardiovascular death, non-fatal myocardial infarction, unstable angina pectoris, hospitalization for HF decompensation and non-fatal stroke) occurrence and HF-related events (hospitalization for HF decompensation) occurrence at 50-months, respectively.

Results:
Kaplan–Meier analyses demonstrated a significantly higher incidence of cardiovascular/cerebrovascular events in proportion to a higher H2FPEF score (log-rank test, P=0.005). The HF-related event rate was higher in proportion to the H2FPEF score (log-rank test, P<0.001). Multivariate Cox hazard analyses identified the H2FPEF score (per 1 point) as an independent predictor of cardiovascular and HF-related events (Table, hazard ratio, 1.179; 95% confidence interval, 1.066–1.305; P=0.001 and hazard ratio, 1.288; 95% confidence interval, 1.134–1.463; P=0.001, respectively). Receiver operating characteristic analysis showed that the H2FPEF significantly predicted cardiovascular events (Figure A, AUC 0.626, 95% CI 0.557–0.693; P<0.001) and HF-related events (Figure B, AUC 0.680, 95%CI 0.600-0.759; P<0.001). The cutoff H2FPEF score was 5.5 for the identification of cardiovascular and HF-related events.

Conclusion:
The H2FPEF score is a potentially useful marker for the prediction of cardiovascular and HF-related events in HFpEF patients.
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Conclusion: The H2FPEF score is a potentially useful marker for the prediction of cardiovascular and HF-related events in HFpEF patients.

Figure. Receiver operating characteristic curves for H2FPEF scores to predict composite cardiovascular events (A) and heart failure-related events (B).