Abstract: P1618

Impact of geriatric nutritional risk index on mortality in patients with heart failure with preserved ejection fraction compared with HFmrEF and HFrEF

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Background: It has been shown that malnutrition is a risk factor for the development of heart failure and risk factors for the occurrence of an event after the onset of heart failure. However, it is not clear that malnutrition can strongly influence which heart failure subset of ‘heart failure with reduced ejection fraction (HFrEF)’, ‘heart failure with mid-range ejection fraction (HFmrEF)’ and ‘heart failure with preserved ejection fraction (HFpEF)’.

Purpose: Geriatric Nutritional Risk Index (GNRI) is a simple nutritional assessment tool for elderly subjects. We investigated the effect of GNRI on prognosis in HFrEF, HFmrEF, and HFpEF.

Methods: This study was a single center study. We retrospectively analyzed 538 patients hospitalized for heart failure at our Hospital in 2015. Among these patients, there were 235 patients (43.7%) with HFrEF, 115 patients (21.4%) with HFmrEF, and 188 patients (34.9%) with HFpEF. GNRI on admission was calculated as follows: 14.89 × serum albumin (g/dl) + 41.7 × body mass index/22. In each of HFrEF, HFmrEF, HFpEF, mortality of the low GNRI group (<92 : with moderate or severe nutritional risk) and the high GNRI group (≥92 : with no or low nutritional risk) were compared by the Kaplan Meier method and the log-rank test.

Results: At 2 years, there was no significant difference in the survival rate between the low GNRI group and the high GNRI group in the HFrEF (P=0.2215) and HFmrEF (P=0.9541), but in the HFpEF, the survival rate was remarkably low in the low GNRI group (P=0.0044).

Conclusion: GNRI may be more useful for predicting HFpEF prognosis rather than HFrEF.