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Clinical features and short-term outcomes among acute heart failure emergency department patients by preserved vs. reduced ejection fraction

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Background and aim: Heart failure (HF) with preserved ejection fraction (HFpEF) occurs in almost half of HF. This study aimed to assess in-hospital and short-term outcomes among ED patients with acute HF by preserved vs. reduced ejection fraction (EF).

Results: A total of 719 patients [median age 73.0 (66.0-80.0) years, 45.1% female] were enrolled. Of the patients, 194 (27.0%) were HFpEF, 118 (16.4%) were HFmrEF, and 407 (56.6%) were HFrEF. The median age of the HFpEF patients was 73.5 [63.8-76.3], while the median age of the other patients was 72.0 [70.0-80.0] (p=0.101). While 59.8% (n=116) of HFpEF patients were female, 39.6% (n=208) were female in the other group (p<0.001). HFpEF suffered more frequently from COPD (36.1% vs. 21.0%, **p<0.001**). There are no statistically significant difference between HFpEF and other group for hypertension (76.3% vs 70.1%, p=0.102), diabetes mellitus (40.2% vs 34.7%, p=0.170) and atrial fibrillation/flutter (22.7% vs 17.7%, p=0.132). HFrEF and HFmrEF group suffered more frequently from coronary artery disease (64.2% vs. 39.7%, **p<0.001**). Paroxysmal nocturnal dyspnea and exercise intolerance was higher in the reduced EF group (p<0.001 and 0.042, respectively). There was no statistically significant difference in other admission complaints and physical examination findings.

Conclusions: Almost a quarter of ED patients with AHF have HFpEF. Patients with a diagnosis of HFpEF who applied to the ED had fewer hospitalizations than patients with a diagnosis of HFrEF, but the duration of stay in the ED and hospitalization were longer. Due to more comorbid conditions in the HFpEF group, the length of hospital stay may be longer.

Methods: This prospective study included 719 consecutive acute HF patients who presented to the ED with acute HF symptoms and signs. The patients were divided into 2 groups: the HFpEF and HFrEF-HFmrEF. Patients' characteristics, laboratory findings and outcomes has been evaluated.

Keywords : Ejection fraction, Emergency department, HFpEF