Clinical Characteristics of Patients with Chronic Heart Failure with Preserved Ejection Fraction in KCMH and Predictors of Rehospitalization

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Background: Heart failure with preserved ejection fraction has different clinical entities and treatment from heart failure with reduced ejection fraction. Little is known about characteristics and outcomes among advanced stage patients in Thai population.

Objective: To study clinical characteristics and outcomes of heart failure patients with preserved ejection fraction who admitted with heart failure decompensation. In addition, we studied predictors of worse outcomes.

Methods: We enrolled clinical data from hospital database of patients who admitted with heart failure coded by ICD 10 number “I 50” in either principle or comorbidities during January 2011-March 2015. These were classified into HF with reduced EF, HF with midrange EF, HF with normal EF by LVEF of <40, 40-50 and >50% derived by echocardiogram, respectively. We collected the clinical data from patients with HFpEF (midrange and normal EF). Excluded patients were those with structural heart disease and heart failure associated with acute coronary syndrome. Baseline characteristics, symptoms and signs, laboratory values, and medications were collected. Also, clinical outcomes of heart failure rehospitalization and all causes mortality within one year were recorded. We used independent T-test and Chi-square for the analysis of correlation between variables and outcomes.

Results: A total of 171 HF hospitalized patients were included in this study. Of these, 98 (57%) were female. Mean age was 69.5 years. Mean BMI was 28.3 kg/m2. HT, DM, and DLP were three most common comorbidities. In cases with reported diastolic parameters (72%of all), more than one third had diastolic dysfunction ≥ grade 2. Diuretics were the most prescribed drugs. Beta blocker (53.8%) was the most common used antihypertensive medication. Mortality was 2.3% and 8.8 % during hospitalization and within one year after discharge, respectively. All causes of morality were non-heart failure related. The rehospitalization rate within one year was 28.1%. There were no correlation between baseline characteristics and clinical parameters with rehospitalization, except diastolic blood pressure (P=0.048).

Conclusion: HFpEF in Thais are elderly, female, and high BMI. HT, DM, and DLP are three most common comorbidities. Diastolic dysfunction is commonly found and diastolic blood pressure is the only parameter to predict worse outcome. Further study to prove the efficacy of proper diastolic BP control to prevent frequent readmission is warranted.

Keywords: Heart failure with preserved ejection fraction, Baseline characteristics, Rehospitalization