

RESEARCH ARTICLE

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Acute decompensated heart failure in a non cardiology tertiary referral centre, Sarawak General Hospital (SGH-HF)

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Abstract

Background: Data on clinical characteristics of acute decompensated heart failure (ADHF) in Malaysia especially in East Malaysia is lacking.

Methods: This is a prospective observational study in Sarawak General Hospital, Medical Department, from October 2017 to September 2018. Patients with primary admission diagnosis of ADHF were recruited and followed up for 90 days. Data on patient's characteristics, precipitating factors, medications and short-term clinical outcomes were recorded.

Results: Majority of the patients were classified in lower socioeconomic group and the mean age was 59 years old. Hypertension, diabetes mellitus and dyslipidaemia were the common underlying comorbidities. Heart failure with ischemic aetiology was the commonest ADHF admission precipitating factor. 48.6% of patients were having preserved ejection fraction HF and the median NT-ProBNP level was 4230 pg/mL. Prescription rate of the evidence-based heart failure medication was low. The in-patient mortality and the average length of hospital stay were 7.5% and 5 days respectively. 43% of patients required either ICU care or advanced cardiopulmonary support. The 30-day, 90-day mortality and readmission rate were 13.1%, 11.2%, 16.8% and 14% respectively.

Conclusion: Comparing with the HF data from West and Asia Pacific, the short-term mortality and readmission rate were high among the ADHF patients in our study cohort. Maladaptation to evidence-based HF prescription and the higher prevalence of cardiovascular risk factors in younger patients were among the possible issues to be addressed to improve the HF outcome in regions with similar socioeconomic background.

Keywords: Acute decompensated heart failure, Epidemiology, Sarawak, Southeast Asia, Malaysia

Background

Heart failure (HF) is defined as complex clinical syndrome due to structural or functional impairment of heart, contributing to reduced cardiac output or raised intracardiac pressure [1]. In Asia, high prevalence of cardiovascular risk factors such as hypertension and diabetes are leading to more cardiovascular diseases such as

ischemic related heart failure [2]. The present Asia Pacific registries are showing unsatisfactory HF outcome in this region [3].

In Malaysia, it was estimated 10% of admission to hospital was heart failure-related, and 25% of them readmitted within 30 days post-discharge.¹ However, the reports on HF in Malaysia are scarce. Malaysian patients represented only small portion of data in the past regional clinical registries [3].

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¹ Ministry of Health Malaysia, *Management of Heart Failure* 2014, 3rd ed.

