

Presentation and mortality of patients hospitalised with acute heart failure in Botswana

Julius Chacha Mwita Matthew J. Dewhurst Mgaywa G.M.D. Magafu Monkgogi Goepamang Bernard Omech Koketso Lister Majuta Marea Gaenamong Tommy Baboloki Palai Mosepele Mosepele Yohana Mashalla

Published Online: 1 Apr 2017

DOI: [10.5830/CVJA-2016-067](#)

Abstract

Introduction: Heart failure is a common cause of hospitalisation and therefore contributes to in-hospital outcomes such as mortality. In this study we describe patient characteristics and outcomes of acute heart failure (AHF) in Botswana. **Methods:** Socio-demographic, clinical and laboratory data were collected from 193 consecutive patients admitted with AHF at Princess Marina Hospital in Gaborone between February 2014 and February 2015. The length of hospital stay and 30-, 90- and 180-day in-hospital mortality rates were assessed. **Results:** The mean age was 54 ± 17.1 years, and 53.9% of the patients were male. All patients were symptomatic (77.5% in NYHA functional class III or IV) and the majority (64.8%) presented with significant left ventricular dysfunction. The most common concomitant medical conditions were hypertension (54.9%), human immuno-deficiency virus (HIV) (33.9%), anaemia (23.3%) and prior diabetes mellitus (15.5%). Moderate to severe renal dysfunction was detected in 60 (31.1%) patients. Peripartum cardiomyopathy was one of the important causes of heart failure in female patients. The most commonly used treatment included furosemide (86%), beta-blockers (72.1%), angiotensin converting enzyme inhibitors (67.4%), spironolactone (59.9%), digoxin (22.1%), angiotensin receptor blockers (5.8%), nitrates (4.7%) and hydralazine (1.7%). The median length of stay was nine days, and the in-hospital mortality rate was 10.9%. Thirty-, 90- and 180-day case fatality rates were 14.7, 25.8 and 30.8%, respectively. Mortality at 180 days was significantly associated with increasing age, lower haemoglobin level, lower glomerular filtration rate, hyponatraemia, higher N-terminal pro-brain natriuretic peptide levels, and prolonged hospital stay. **Conclusions:** AHF is a major public health problem in Botswana, with high in-hospital and post-discharge mortality rates and prolonged hospital stays. Late and symptomatic presentation is common, and the most common aetiologies are preventable and/or treatable co-morbidities, including hypertension, diabetes mellitus, renal failure and HIV.