

**PREVALENCE, SOCIODEMOGRAPHIC AND CLINICAL
PATTERN OF ACUTE DECOMPENSATED HEART FAILURE
AT MURANGA DISTRICT HOSPITAL**

**A DISSERTATION PRESENTED AS PART OF THE FULFILLMENT
OF THE AWARD OF DEGREE OF MASTER OF MEDICINE IN
INTERNAL MEDICINE – UNIVERSITY OF NAIROBI**

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DECLARATION

This dissertation is my original work and has not been presented for a degree at any other university.

Signed.....

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ABSTRACT

BACKGROUND

Acute decompensated heart failure (ADHF) is a complex clinical syndrome associated with very significant morbidity and mortality. Due to its increasing prevalence, ADHF is gaining increased attention, particularly because of the current and future burden on health care systems. It is therefore important to recognize the different clinical presentations of ADHF and choose the most appropriate treatment. Heart failure is a major public health problem worldwide. The last two decades have witnessed a progressive and remarkable increase in the morbidity and mortality of heart failure, in association with a reduction in age-adjusted mortality due to cardiovascular events.

Regretfully, most of the published data on heart failure is based on work in Caucasian populations within the developed world, and data on its incidence, prevalence, etiology, treatment, and outcome in Africa are lacking.

This study aims to shed some light on the prevalence of ADHF, and outline the socio-demographic features and clinical patterns associated with the condition, at a peripheral hospital in rural Kenya

OBJECTIVE OF THE STUDY

To describe the state of heart failure in patients admitted to the adult medical wards at the Murang'a district hospital

STUDY DESIGN

Prospective observational study

STUDY SETTING

Adult medical wards at the Murang'a district hospital

STUDY SUBJECTS

Patients admitted to the medical ward with symptoms of dyspnea or a presumptive diagnosis of acute decompensated congestive heart failure over a 6 month period

SAMPLE SIZE

Approximately 19 patients are admitted with a diagnosis of heart failure monthly, therefore approximately 114 patients will be expected to be enrolled during the 6 month study period.

SAMPLING, DATA COLLECTION AND ANALYSIS

Consecutive sampling was done, on all patients admitted with dyspnea as the main complaint or those with an admitting diagnosis of heart failure. *The Modified Frammingham Criteria for Heart Failure* was administered to each and those who fulfilled the criteria were defined as a case of heart failure and were enrolled into the study. Data was entered into a study proforma and questionnaire. Data analysis was done using statistical package for social scientists (SPSS) version 17.

RESULTS

The study was conducted at between May and Oct 2011. A total of 2104 patients were admitted into the medical wards. Of these, 274 presented with dyspnea as the main complaint or an admitting diagnosis of heart failure and were screened. One hundred and one patients were recruited into the study after meeting the inclusion criteria. This translated to a prevalence of 4.9%. There was a slight male preponderance with a male to female ratio of 1.4:1. The mean age was 60.2 years. Majority of the patients were born and had been living in Muranga for the last five years and were of a low social economic status, with most being peasant farmers. High alcohol consumption was reported, with 23% having history of alcohol use in the last one year. Thirty two percent of the patients in the study population had history of past or current smoking. Over ninety per cent of patients presented with severe disease with 56% being in NYHA class IV. Hypertension and diabetes were the most common co morbidities in the sample population. Hypertensive heart disease was the most common aetiological factor accounting for 36% of the cases followed by dilated cardiomyopathy at 25%. Poor drug compliance was the most common precipitating factor, contributing to 53% of the cases. The in-hospital case fatality rate was 5.9%

CONCLUSION

In conclusion we report a high HF disease burden in a rural Kenyan community and identify Hypertensive Heart Disease and Dilated Cardiomyopathy as accounting for two thirds of cases. This we find to be commensurate with the high frequency of the recognized HF antecedent of hypertension, diabetes mellitus, cigarette and heavy alcohol consumption, that are amenable to recognized primordial and primary prevention strategies.