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CLINICAL CHARACTERISTICS AND SIX MONTHS OUTCOMES OF HYPERTENSIVE VERSUS NON-HYPERTENSIVE ACUTE HEART FAILURE IN NIGERIA

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Background: Hypertension remains the leading cause of heart failure in sub-Saharan Africa, yet differences in the clinical presentation and outcomes of hypertensive and non-hypertensive acute heart failure (AHF) are poorly characterized in Nigeria. This study compared the clinical characteristics, management, and six-month outcomes of patients with hypertensive and non-hypertensive AHF.

Methods: This prospective cohort study utilized data from the Ibadan Acute Heart Failure Project. Consecutive adults admitted with AHF between 2016 and 2026 were categorized as hypertensive or non-hypertensive using predefined diagnostic criteria. Demographic, clinical, laboratory, electrocardiographic, echocardiographic, treatment, and outcome data were compared. The primary outcome was six-month all-cause mortality.

Results: Among 1,007 patients, 634 (63.4%) had hypertensive AHF. The mean age was 56.1±16.0 years, and hypertensive patients were older (60.3±13.2 vs. 48.8±17.8 years), heavier, and had higher blood glucose and total cholesterol levels (all $p<0.05$). They were more likely to be male, diabetic, have kidney disease, a family history of hypertension or cardiovascular disease, acute pulmonary oedema, widened QRS complexes, higher TAPSE, and longer deceleration time. Conversely, they were less likely to have hepatomegaly, pleural effusion, tachycardia, chest pain, right upper abdominal pain, easy satiety, pericardial effusion, or intracardiac thrombus (all $p<0.05$). Six-month mortality was similar between groups (22.0% vs. 20.3%; $p=0.80$).

Conclusion: Hypertensive AHF is the predominant phenotype in Nigeria and has distinct clinical characteristics but comparable six-month mortality to non-hypertensive AHF. These findings support phenotype-specific approaches to patient evaluation and management.

Keywords: Acute Heart Failure, Hypertensive heart failure, short-term outcomes