



AC021

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DOES TYPE 2 DIABETES MELLITUS HAVE AN IMPACT ON THE OUTCOMES ACROSS HF PHENOTYPES IN A TERTIARY CARE COHORT? -FINDINGS FROM THE IBADAN HF PROJECT

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Background Type 2 diabetes mellitus (T2DM) and heart failure (HF) often coexist with increased morbidity and mortality. The effect of T2DM may differ across HF phenotypes: heart failure with reduced ejection fraction (HFrEF) and heart failure with preserved ejection fraction (HFpEF). The aim is to describe the clinical characteristics and determine the 12-month prognostic impact of T2DM across HF phenotypes in a tertiary care cohort.

Methods This was a prospective cohort study of patients with chronic HF from 2016 to 2025 in the Ibadan Heart Failure Project. Patients were classified based on left ventricular ejection fraction (LVEF) as HFrEF ($\leq 50\%$) and HFpEF ($>50\%$). T2DM was defined by prior diagnosis, use of antidiabetic medication, or HbA1c $\geq 6.5\%$. The sociodemographic data, comorbidities, laboratory parameters, and medications were recorded. The primary outcome was a composite of all-cause mortality and HF rehospitalization at 12 months.

Results: A total of 1069 were recruited with a mean age of 56.6 (15.2) years, and 497 (46.5%) were female. T2DM was present in 144 (13.5%) of the cohort: 11.4% in HFrEF and 17.2% in HFpEF, $p=0.005$. The 12-month mortality occurred in 10.7% of diabetic patients with HFrEF and in 19.4% with HFpEF. The risk was higher in those with HFpEF + T2DM.

Conclusion: The presence of T2DM confers a worse prognosis in HFpEF, highlighting a distinct metabolic-cardiac phenotype. Integrated diabetes and HF management, including early use of cardioprotective antidiabetic agents, is needed to improve outcomes across HF phenotypes.

Keywords: Type 2 diabetes mellitus, heart failure, HFpEF, HFrEF, prognosis, comorbidities