



AC100

Adult Cardiology & Clinical Cardiovascular Medicine • Poster Presentation

CLINICAL AND ECHOCARDIOGRAPHIC CORRELATES OF LEFT VENTRICULAR DIASTOLIC DYSFUNCTION AMONG PATIENTS WITH ACUTE ISCHEMIC STROKE: A RETROSPECTIVE PILOT STUDY FROM SOUTHEASTERN NIGERIA

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Background: Acute ischemic stroke (AIS) is a leading cause of mortality and long-term disability worldwide and is increasingly recognized as a manifestation of systemic cardiovascular disease. Left ventricular diastolic dysfunction (DD) is common among patients with AIS and has been associated with adverse cardiovascular and neurological outcomes. However, data from sub-Saharan Africa remain limited. This study investigated the clinical and echocardiographic correlates of DD among patients with AIS in southeastern Nigeria.

Methods: This retrospective observational pilot study included 47 consecutive adults with CT- or MRI-confirmed AIS admitted between January 2024 and May 2026. Comprehensive transthoracic echocardiography was performed during index admission, and diastolic function was assessed using the 2016 American Society of Echocardiography/European Association of Cardiovascular Imaging recommendations. Continuous and categorical variables were analyzed using the Mann–Whitney *U* test, Pearson's chi-square, or Fisher's exact tests, as appropriate.

Results: Diastolic dysfunction was identified in 46 (97.9%) patients. Grade I DD predominated (35; 74.5%), followed by Grade II (6; 12.8%) and Grade III (5; 10.6%). Patients with moderate-to-severe DD had significantly lower left ventricular ejection fraction and higher E-wave velocity, E/A ratio, and E/e' ratio than those with normal/mild DD ($p < 0.05$). No significant associations were found between DD severity and demographic or clinical variables.

Conclusion: Left ventricular diastolic dysfunction is highly prevalent among Nigerian patients with AIS, with Grade I dysfunction predominating. Routine comprehensive echocardiography may improve cardiovascular risk stratification and guide secondary prevention. Larger prospective multicentre studies are warranted.

Keywords: Acute ischemic stroke; diastolic dysfunction; echocardiography; tissue Doppler imaging; left ventricular filling pressure; Nigeria.