NIGERIAN CARDIAC SOCIETY (NCS)
55th Annual General Meeting & Scientific Conference (NCS EKO 2026)
September 22–24, 2026 • Eko Hotel Convention Centre, Lagos, Nigeria

AC005

Adult Cardiology & Clinical Cardiovascular Medicine • Poster Presentation

BURDEN OF RIGHT VENTRICULAR DYSFUNCTION IN LEFT VENTRICULAR FAILURE WITH REDUCED EJECTION FRACTION (HFREF): IMPLICATIONS OF COEXISTING PULMONARY HYPERTENSION

Mba PC, Anakwue RC, Oguanobi NI, Njoku PO, Iyidobi TC, Mbadiwe NC, Ekwe EA

Stand: POSTER #AC005 | **Venue:** Poster Exhibition Hall & Gallery - Eko Convention Centre |**Online Ref:** https://nigeriancardiacsociety.com/abstracts/AC005

Background: Pulmonary hypertension (PH) commonly complicates Left ventricular failure with reduced ejection fraction (HFrEF) and contributes to right ventricular (RV) dysfunction and adverse outcomes.

Methodology: This was a cross-sectional comparative study involving 285 participants: 95 HFrEF patients with PH, 95 HFrEF patients without PH, and 95 healthy controls. Patient demographic characteristics were obtained, together with assessment of pulmonary hypertension risk factors. Echocardiography was used to assess RV systolic function using tricuspid annular plane systolic excursion (TAPSE), right ventricular peak systolic velocity (RVS), and right ventricular fractional area change (RVFAC); RV diastolic function using right ventricular early diastolic filling/atrial contraction (RVE/A), right ventricular early diastolic filling/early diastolic tricuspid annular velocity (RVE/e), and right ventricular deceleration time (RVDT), and pulmonary artery pressures using pulmonary artery systolic pressure (PASP) and mean pulmonary artery pressure (MPAP).

Results: Patients with HFrEF and PH had a significantly higher burden of right ventricular systolic dysfunction compared to patients with HFrEF and no PH and healthy controls; TAPSE 68.4% vs 40.0% vs none; RVS 40% vs 28.4% vs none; RVFAC 26.3% vs 18.9% vs none, and diastolic dysfunction; RVE/e 44.2% vs 12.6% vs none. Conclusion: Coexisting PH substantially increases the burden of RV dysfunction in HFrEF and is associated with worsening RV performance as pulmonary pressures rise.

Keywords: HFrEF; Pulmonary Hypertension; Right Ventricular Dysfunction; TAPSE; Echocardiography; Heart Failure