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

AC025

Adult Cardiology & Clinical Cardiovascular Medicine • Poster Presentation

ASSESSMENT OF ANTHRACYCLINE-INDUCED CARDIOTOXICITY IN BREAST CANCER PATIENTS AT LAGOS STATE UNIVERSITY TEACHING HOSPITAL, IKEJA

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Stand: POSTER #AC025 | **Venue:** Poster Exhibition Hall & Gallery - Eko Convention Centre |**Online Ref:** https://nigeriancardiacsociety.com/abstracts/AC025

BACKGROUND: Anthracycline-induced cardiotoxicity is one of the major side effects of chemotherapy. This is often used in breast cancer neo-adjuvant therapy. There is limited data on this in Nigeria and Sub-Sahara Africa, especially the combined use of advanced echocardiographic techniques like Global Longitudinal Strain (GLS) and cardiac troponin.

AIMS AND OBJECTIVES: This study aimed to identify the echocardiographic variables and cardiac biomarker related to the early detection of anthracycline-induced cardiotoxicity.

SUBJECTS /MATERIALS/ METHODS: This was a prospective observational study in which 60 consented adult female patients who met the other inclusion criteria and were diagnosed with breast cancer were consecutively recruited from the Oncology Clinic at LASUTH, Lagos.

RESULTS: The mean age was 48.33±8.96 years. Majority of participants were multiparous (63.3%), had breastfed (91.7%), and were premenopausal (31.3%). There were significant changes in the left ventricular dimensions , although these remained within normal range. The left ventricular internal dimension (LVIDD) was significantly reduced over time. (F = 552.232; P=0.0013). Left ventricular mass (LVM) and left ventricular mass index (LVMI) were also significantly reduced at both 28days and 3 months. (F=248.310, P=0.0007; F=364.177, P=0.0003). There were also significant changes in global longitudinal strain (GLS) over time (F-288.020; P=0.0005) despite the LV ejection fraction (LVEF) being within normal. There were also significant increase in troponin levels.

CONCLUSION The findings of this study highlight the crucial role of highly sensitive markers, such as Global Longitudinal Strain (GLS) and troponin, in the early detection of cardiotoxicity.

Keywords: ANTHRACYCLINE-INDUCED CARDIOTOXICITY, GLOBAL LONGITUDINAL STRAIN, CARDIAC TROPONIN