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## EARLY DETECTION OF SUBCLINICAL EPIRUBICIN-INDUCED CARDIOTOXICITY USING TWO-DIMENSIONAL SPECKLE TRACKING ECHOCARDIOGRAPHY

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**Objectives** To assess the early subclinical epirubicin-induced cardiotoxicity during treatment of non-Hodgkin's lymphoma using two-dimensional (2D) speckle tracking echocardiography (STE).

**Methods** Thirty-six patients (15 male/21 female) aged 56.88±9.76 with non-Hodgkin's lymphoma were included. Global longitudinal (GS), circumferential (CS) and radial strain (RS) were determined by 2D-STE before and 1 day after the last dose of epirubicin.

**Results** Despite normal LVEF, after chemotherapy, GS, CS and RS reduced from −17.92±1.93% to −16.59±2.16% ($p<0.01$), from −20.46±3.39% to −18.01±2.16% ($p<0.01$), and from 23.90 ±5.10% to 21.86±6.03% ($p>0.05$) respectively. Among sex, age, cumulative doses of epirubicin (mg/m$^2$), cigarette smoking, hypertension and diabetes, hypertension was the only negative predictor of LS decrease ($p=0.036$, 95% CI 0.03 to 4.06), and diabetes was the only negative predictor of CS decrease ($p=0.009$, 95% CI 1.16 to 7.30).

**Conclusions** 2D-STE may help to detect Subclinical systolic myocardial abnormalities presented in asymptomatic non-Hodgin's disease patients shortly after epirubicin treatment.