



## Role of Three Dimensional Transthoracic Echocardiography in Detecting the Change of Left Ventricular Global and Regional Wall Function

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### Introduction

The role of the three dimensional echocardiography (3-DE) in assessment of global and regional LV function need to be studied. This study aimed to compare between 2DE and 3DE in detection of regional wall motion abnormality (RWMA) and evaluation of LV regional and global function.

This study was conducted on seventy subjects divided into two groups: Group 1 (patients' group) included 50 patients with acute coronary syndrome (mean age  $55 \pm 8$  years) and Group 2 (controls' group) included 30 healthy subjects (mean age  $32.6 \pm 8.5$  years). All subjects underwent evaluation by 2 and 3-DE to detect the presence of wall motion abnormality.

Assessment of regional EF by 3DE agreed with 2D assessment, and agreement was better in certain myocardial segments (anterior wall, basal segment of inferior wall, basal segment of lateral wall and apex) than other segments.

The 3-D echocardiography provides objective and assessment of regional wall motion abnormalities in patients with ACS. However, it does not show superiority over the routine assessment of RWMA by 2D echocardiography.

**Keywords:** 3-D Echocardiography, ACS, wall-motion abnormality.

### Biography

Zakarya Radman Hasan Saad specialist in Cardiology, Master Degree (MSc) of Cardiology Cairo University, Cairo, Egypt, Nov 2018. Bachelor Degree of Medicine (MBBS):very good /Damascus University, Damascus, Syria, 2011. One year of internship at Damascus University Hospital Syria, attending the entire departments as scheduled by the Syria University Hospitals having skills and broad knowledge on assessment and diagnosis of the patients with further development of the appropriate treatment plan and follow up the patients. Jan-2014-July2019: Worked as a resident in the department of Cardiovascular Medicine, Kaser Al-Aini Hospital-Cairo University in the following: Also skilled in diagnostic procedures with patients.