**ROLE OF MITRAL INFLOW AND TISSUE DOPPLER IMAGING IN DETECTING MYOCARDIAL VIABILITY BY DOBUTAMINE STRESS ECHOCARDIOGRAPHY**

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Aim: We sought to evaluate the role of the mitral inflow as well as Doppler tissue imaging (DTI) in assessment of myocardial viability as detected by dobutamine stress echo (DSE) in patients with ischemic cardiomyopathy (ICM).

Methods: This study was a prospective study on 100 patients with (ICM) undergoing two-dimensional, Doppler and (DSE). Pulsed wave Doppler mitral flow velocity was done for recording: E deceleration time (EDT). Restrictive mitral inflow pattern (RMIP). (DTI) was done to determine early tissue Doppler diastolic wave (EDTI) and late diastolic wave (ADTI). Low dose (DSE) was done to diagnose myocardial viability and all the previous echo parameters were repeated at peak stress.

Results: Thirty six patients showed negative viability on (DSE) were considered group A whereas group B comprised of 64 patients who showed positive viability. The 2 groups showed similar demographic data.(EDT)was 159.6 ±0.39 msec in group A versus 192.5± 33 msec in group B (p<0.001). (EDTI) was6.6 ±0.1cm/sec in group A versus7.6 ±0.2 cm/sec in group B (p<0.05). (ADTI) was 5.3 ± 0.2cm/sec in group A versus 7 ±0.2 cm/sec in group B (p<0.01). ( RMIP)was present in only 2 of 34(5.8%) patients of group B versus 15 of 64 (32.6%) patients of group A (p<0.001).

On multivariate analysis, (RMIP) was found the most powerful predictor of myocardial viability, with 32.4% sensitivity, 94.4% specificity and Positive predictive value of 88.2%.

Conclusion: (RMIP) is specific but not sensitive for the detection of myocardial viability in patients with (ICM).