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Thesis Title	Assessment of Right Ventricular Function by Tissue Doppler Echocardiography in Patients with Left Ventricular Systolic Dysfunction			
Year	2015			
Abstract	<p>Background Knowledge about the role of the right ventricle in health and disease historically has lagged behind that of the left ventricle. Less muscular, restricted in its role to pumping blood through a single organ, and less frequently or obviously involved than the left ventricle in diseases of high proportions such as myocardial ischemia, cardiomyopathy, or valvulopathy. Consequently, comparatively little attention has been devoted to how right ventricular dysfunction may be best detected and measured. Right ventricular function is related to left ventricular function by ventricular interdependence, so we should assessed its function carefully.</p> <p>The Aim of the Study Is to assess the consequence of the left ventricular systolic dysfunction on the right ventricular systolic and diastolic function by Tissue Doppler Echocardiography.</p> <p>Methods From October 2014 to May 2015 we enrolled 60 consecutive patients with left ventricular systolic dysfunction diagnosed by echocardiography with the mean left ventricular ejection fraction (LVEF) of (37.6±8.6%). For all, complete transthoracic echocardiography (TTE) was done, including assessment of left ventricular dimensions, systolic and diastolic function by two-dimensional (2-D) and tissue Doppler echocardiography (TDI), assessment of right ventricular dimensions, systolic and diastolic function by (2-D) and (TDI) echocardiography. And measurement of pulmonary artery systolic pressure (PASP) for all patients, and pulmonary vascular resistant (PVR) to about one third of patients.</p> <p>Results Mean RV MPI was (0.60±0.23), 63.3% of patients have abnormal RV</p>			

MPI. RVDD was found in 80% of patients. Mean TAPSE was (18.68±4.48 Abstract

mm),35% of them have abnormal TAPSE. Mean RVS' was (11.7±4.3 cm/sec),30% of patients have abnormal S'. RV dilatation was found in 35% of patients. PASP was abnormal in 28.3% of patients and PVR in 27.3%.

Right ventricular myocardial performance index was the most sensitive parameter, its sensitivity to detect RV dysfunction was 100% and specificity 52%. While TAPSE was less sensitive more specific than RV MPI, its sensitivity was 38% and specificity 84%. The least sensitive one was the S' , 29% sensitivity and 82% specificity.

Conclusion

Right ventricular function is affected in patients with LVSD .And RV diastolic function is affected more than the global RV function represented by MPI and RV systolic function represented by TAPSE and S'.

Keywords

Right ventricular dysfunction, left ventricular dysfunction and tissue Doppler echocardiography.

