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Thesis Title	Echocardiographic assessment of Left Ventricular Dyssynchrony in Hypertensive Patients with Normal Systolic Function			
Year	2016			
Abstract	<p>Normal Left Ventricular systolic function is present in nearly 50% of patients with congestive heart failure, the majority of such patients have systemic hypertension. Recent studies have demonstrated Left Ventricular dyssynchrony among patients with heart failure and normal systolic function.</p> <p>The co-existence between Left Ventricular dyssynchrony and hypertension with normal systolic function (with no clinical evidence of heart failure), is less well understood.</p> <p>The Aim of study :</p> <p>To assess the Left Ventricular dyssynchrony among hypertensive patients with normal systolic function by using Tissue doppler imaging. To find out the associations between the LV dyssynchrony and other global echocardiographic findings like (LA volume index, LV mass index , LV sphericity and LV filling pressure E/E`) .</p> <p>Patients and method</p> <p>Prospective case- control study conducted in Baghdad Teaching Hospital from 1st of June 2015 to 30th of May 2016 .</p> <p>Study included two groups of people, a 40 age_ matched healthy (control) group (group1) and 60 patients with established hypertension (group 2). A Complete 2-D and TDI echocardiography studies with similitnous ECG were performed for all patients. Examination involved LV septal and posterior wall thicknesses, internal</p>			

dimensions, left atrial size, ejection fraction and tissue doppler derived waves velocities E', E/E.' Dyssynchrony was determined by measuring T-P max (the VII maximal time difference from the onset of QRS to peak systolic velocity on TDI between any opposing LV wall in 3 apical views) .

Results:

The study included 40 age –matched control people, 27males (67.5%) and 13 females (32.5%) with a male to female ratio was 1.8 :1, ranging from (42.4-58y) with mean age was (50.2 ±7.8y) (group 1) and 60 hypertensive patients, 38 males (63.3%) and 22 females (36.7%) with a male to female ratio was 1.7 :1, ranging from (48.5-66.5y) with mean age of (57.5± 9.0 y) (group 2) .

Left Ventricular dyssynchrony was identified in 20 of 60 patients (33.3%) .

Dyssynchrony had no significant association with age and BSA. Dyssynchrony was significantly associated with LA volume index ($r = 0.61$, $p=0.001$), LV mass index ($r=0.52$, $p=0.001$) , LV sphericity index ($r= 0.5$, $p = 0.003$)) and LV filling pressure ($r=0.6$, p value= 0.001) . Dyssynchrony had significant negative correlation with (E`) velocity ($r= - 0.7$, $P =0.001$) .

Conclusion:

Left Ventricular dyssynchrony is frequent among hypertensive patients with normal LV systolic function .

The Left Ventricular dyssynchrony is significantly related to LA volume, LV mass, LV sphericity and LV filling pressure.