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Thesis Title	The Value of Speckle – Tracking Strain Echocardiography For Detection of Subclinical Left Ventricle Systolic Dysfunction In Hypertensive Patients With Normal Ejection Fraction			
Year	2016			
Abstract	<p>Hypertension is one of the most common diseases in the world and can cause many structural and functional cardiac abnormalities. One of these changes is left ventricular systolic dysfunction which may not be detected by conventional echocardiographic parameters and need to use a new modality of two dimensional speckle tracking strain for early detection and improvement of prognosis</p> <p>Objectives: Assessment of left ventricle systolic function in hypertensive patients with normal ejection fraction using two dimensional speckle- tracking stain and its role as early predictor of subclinical dysfunction</p> <p>Patients and methods: This was a comparative observational study of two groups of individuals: (100)hypertensive patients and (50) normotensive subjects were enrolled in the study which take place at Ibn Al- Bittar Teaching Hospital from September 2015 to August 2016. Both the conventional echocardiographic parameters (ejection fraction, left ventricular mass and relative wall thickness, diastolic function and mitral annular plane systolic excursion) and speckle tacking longitudinal strain done for the patients.</p> <p><i>VIII</i></p>			

Results:

Hypertensive patients with mean age (53.6 ± 5.37), males were (56%) and females were (44%), two dimensional speckle strain showed no significant differences between normotensive ($-21.1 \pm 2.5\%$) and hypertensive ($-19.2 \pm 3.9\%$) groups.

Applying Cut off value of (-17.5%), it was found that 21% of hypertensive patient were present with undetected left ventricular systolic dysfunction even with preserved ejection fraction

Global longitudinal strain was reduced significantly in those with concentric left ventricle hypertrophy ($-18.2 \pm 3.5\%$, p value=0.02), elevated in left ventricular end diastolic pressure ($-14.8 \pm 1.6\%$, p-value= 0.002) and reduced mitral annular plane systolic excursion ($-14.8 \pm 1.6\%$, p-value=0.008)

Conclusion:

Speckle tracking stain is a useful tool in the early detection of subtle left ventricular systolic dysfunction in a group of hypertensive patients with preserved ejection fraction and in whom more aggressive interventions could have a significant impact on prognosis.