**CENTRAL OBESITY: AN INDEPENDENT ROLE OR SYNERGISTIC EFFECT TO METABOLIC SYNDROME ON LEFT VENTRICULAR FUNCTION (SYSTOLIC VS DIASTOLIC)?**

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*Background*: The metabolic syndrome (MS) has been shown to affect the left ventricle (LV). Whether the impact of central obesity (CO) on LV function is independent of the MS is uncertain. Objective: To assess the impact of CO with or without MS diagnosis on LV systolic and diastolic function.

*Methods*: Cross-sectional study of 100 patients (56 women) with CO defined as a waist circumference (WC) >102 cm in men, >88 cm in women. MS was defined by the presence of ≥ 3 ATP-NCEP-III criteria. All patients were subjected to conventional echocardiography.

*Results*: MS was diagnosed in only 57 patients. The left atrial (LA) dimension, septal wall thickness (SWT) and posterior wall thickness (PWT) were significantly higher (p= 0.033, p=0.001, and p= 0.003) in MS compared to non-MS patients. Mitral flow E/A ratio was significantly lower in MS compared to non-MS patients (p = 0.006). There was no significant difference in ejection fraction (EF) and fraction shortening (FS) (p= 0.444 and p=0.856 respectively) between MS and non-MS patients. The independent predictors for SWT and PWT were WC (B=0.004, p=0.004 and B = 0.005, p=0.001 respectively) and SBP (B=0.003, p=0.000 and B=0.003, p=0.003 respectively), for LA dimension was WC (B = 0.013, p=0.000) and for mitral E/A ratio was age (B = -0.014, p= 0.000) and after multivariable adjustment for age SBP was the independent predictor (B = -0.006, p= 0.000).

*Conclusion*: CO in the presence of MS has a greater synergistic impact than CO alone on LV diastolic function mainly. WC and SBP had a significant impact on LV wall thicknesses while SBP alone had a significant impact on LV diastolic function independent of the other components of the MS.