



## The study of the relationship between left atrial (LA) volume and LV diastolic dysfunction and LV hypertrophy: Correlation of LA volume with cardiovascular risk factors

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### Abstract:

**Introduction:** In approximately 30-50% of the individuals who develop congestive cardiac failure the systolic function as assessed by left ventricular (LV) ejection fraction is either normal or relatively normal. **Aim:** To study the relationship between left atrial (LA) volume and LV diastolic dysfunction and LV hypertrophy and correlate LA volume with cardiovascular risk factors.

**Methodology:** A total of 400 patients were included in the study. These patients underwent a screening echocardiography to diagnose left ventricular hypertrophy and diastolic dysfunction.

**Result:** There is a significant correlation between left ventricular hypertrophy and diastolic dysfunction. 82% patients with evidence of diastolic dysfunction by tissue Doppler had a higher left atrial volume.

**Conclusion:** Increased left ventricular mass is associated with increasing severity of diastolic dysfunction. Increased left ventricular mass is also associated with increased left atrial volume indexed to body surface area. Left atrial volume correlates with the duration of diabetes mellitus. Increasing severity of left ventricular diastolic dysfunction correlates significantly with left atrial volume indexed to body surface area. At milder degrees of diastolic dysfunction, left atrial enlargement may not be the best predictor of severity. But with increasing severity of diastolic dysfunction in left ventricular hypertrophy, left atrial volume indexed to body surface area may be a sensitive and easy marker for assessment of severity and thus the long-term prognosis in terms of atrial fibrillation, stroke and mortality.

### Biography:

Dr. Shubhadarshini Pawar has completed her M.B.B.S. from Bharati Vidyapeeth medical college Pune India and her Masters in Public health (M.P.H.) from King's College London, United Kingdom. She has published more than 15 papers in reputed national and international journals.



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