**DIAGNOSTIC UTILITY OF TRANSTHORACIC ECHOCARDIOGRAPHY IN EVALUATION OF PEDAL EDEMA**

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Background: Pedal edema is a common diagnosis encountered in the clinical practice. It is known to occur due to variety of causes including heart failure. Transthoracic echocardiogram (TTE) is thought to be an important tool for evaluation of pedal edema. Data on the diagnostic utility of TTE for pedal edema is limited.

Methods: We studied 101 patients undergoing TTE for the chief complaint of pedal edema from January 2008 to June 2010. A complete M-Mode, 2D, color and spectral Doppler was performed. Edema was considered to be of cardiac etiology, if TTE showed any of the following abnormalities: Left ventricular (LV) systolic dysfunction (ejection fraction; 40%), LV diastolic dysfunction (E/E’ >15), right ventricular (RV) dysfunction, moderate or severe valvular abnormalities, and elevated pulmonary artery systolic pressures; 50mmHg).

Results: 101 patients, mean age 57 ± 15 yrs, 61 (61%) females were identified in the database. Cardiac cause of edema was found in only 37 (37%) of patients of which diastolic dysfunction was found to be the most common abnormality. Patients with cardiac etiology for edema were older (64 vs. 52; p<0.0001) but otherwise comparable in gender and body surface area (p=0.7 and 0.9 respectively).

Conclusions: In our study, only one-third of the patients with pedal edema were found to have a cardiac etiology by TTE. Hence other etiologies should be considered given the low yield of TTE. Further studies with large patient population will be required to substantiate these findings.