**MOVING BEYOND THE ABSTRACT: OBJECTIVE DETERMINANTS OF RIGHT HEART FAILURE**

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Background: The syndrome of Right Heart Failure (RHF) is a subjective diagnosis. The lack of easily obtainable and objective echocardiographic determinants of RV function hampers classification of RV dysfunction. We hypothesized that standard transthoracic echocardiography (TTE) provides enough information to identify isolated RHF, and sought to define objective determinants of RV function.

Methods: Sequential patients admitted to a large VA hospital were screened for decompensated HF. Patients with the clinical syndrome of RHF, and subjectively abnormal RV function with preserved LV function. 13 patients met inclusion criteria. These were compared to those with no HF and normal bi-ventricular function on TTE. Analysis determined RV fractional area change (FAC) in the apical four-chamber view as well as RV myocardial performance index (RVMPI) calculated utilizing TV inflow and PV outflow pulsed wave or continuous Doppler.

Results: FAC and RVMPI were found to have a strong negative correlation with each other (R2 = 0.625, p < 0.001, Fig. 1), confirming the clinical diagnosis and subjective findings on TTE. RVMPI and FAC were not found to correlate with other potential markers of RV failure severity, such as LFTs, total protein, or INR. As compared to pts with normal LV and RV function, RVMPI was significantly higher (P<0.001) and FAC was significantly (P<0.001) in those patients with RHF.

Conclusions: RVMPI and FAC provided reliable objective parameters of RV function which can be easily calculated from routine TTE acquisition. Improved classification could allow for more reliable diagnosis and improved management of patients with RHF.

