**DOPPLER ECHOCARDIOGRAM UNDERESTIMATES PULMONARY ARTERY PRESSURE IN PATIENTS WITH INSUFFICIENT TRICUSPID REGURGITANT JET**

**M. Aldeiri**, A. Khanfar, P. Nalabothu, M. Morsy, W.I. Khalife

University of Texas Medical Branch, Galveston, TX, USA

Background/Objective: Tricuspid valve regurgitant (TR) jet by transthoracic echocardiography (TTE) is used to evaluate right ventricular systolic pressure (RVSP) which has been shown to correlate well with pulmonary artery systolic pressure (PASP) measured by invasive hemodynamics. When there is insufficient TR jet by TTE, it is commonly assumed that the RVSP is normal.

The aim of our study is to evaluate if PASP is truly normal in patients with insufficient TR jet.

Methods/Results: We reviewed all patients who underwent right heart catheterization (RHC) at our center from 2009 to 2011, in whom a TTE was done within a week. We obtained TR jet and RVSP from the echocardiogram and PASP from the RHC. A total of 308 patients met the inclusion criteria, 50 of them (16%) had insufficient TR jet and the RVSP was read by the TTE as normal. By invasive hemodynamics, 28 out of the 50 patients (56%) had a high PASP (range 35-77 mmHg), 14 % had severe pulmonary hypertension (PHTN) and 25% had mild to moderate PHTN.

Conclusion: Insufficient TR jet is not an uncommon finding on TTE, and it might be associated with high PASP. It should not be assumed that the RVSP is normal if there is insufficient TR jet.