

Abstract No. **44**

Category: **Non Invasive Imaging**

Title: **Clinical Characteristics According to the Tricuspid Regurgitation Velocity in Hospitalized Patients.**

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Abstract:

Background: The tricuspid regurgitation velocity (TRV) estimated by echocardiography is a fundamental parameter in the probability of pulmonary hypertension (PH), which is a predictor of morbidity and mortality.

Methods: Patients hospitalized in a tertiary care hospital were included, who had a transthoracic echocardiogram, with a measurable TRV. Demographic, clinical and echocardiographic information were recorded. Therefore, patients were stratified into 3 groups according to the TRV: low (≤ 2.8 m/s), intermediate (2.8 - 3.4 m/s), and high (> 3.4 m/s). Central tendency and dispersion measures were used for the quantitative variables and frequency distributions for the qualitative ones.

Results: 323 patients were included, 225 (69.7%) had low TRV, 67 (20.7%) had intermediate TRV and 31 (9.6%) had high TRV. The mean age was 59.9 years, patients with high TRV were older; 52.9% were women, 70% were mixed race and 38% had a low level of education. High blood pressure, dyslipidemia, coronary heart disease, heart failure, chronic kidney disease and Chronic obstructive pulmonary disease were more frequent in the high TRV group. Heart rate and systemic blood pressure were higher in patients with high and intermediate TRV. There are no differences in symptoms and most of the patients were in New York Heart Association (NYHA) functional class I - II; NYHA III - IV were higher in the intermediate and high TRV groups. Patients with TRV had a higher ejection fraction and a lower E/e' ratio. Right atrial area was higher in patients with high TRV ($22.8 \text{ cm}^2 \pm 9.6$), and pericardial effusion was observed more frequently in the intermediate and high TRV groups. 20% of low TRV patients had intermediate probability of PH; 50% of intermediate TRV patients had a high probability of PH. Additional studies for diagnosis of PH, even they were indicated, have been rarely carried out.

Conclusion: Patients hospitalized with intermediate and high TRV show a higher burden of comorbidities and echocardiographic findings of systolic and diastolic dysfunction. The additional echocardiographic parameters determines the probability of PH in a significant percent of patients. Additional studies for evaluation of PH was rarely performed.