**ASSESSMENT OF IMPACT OF PREPROCEDURAL PULMONARY HYPERTENSION TO THE CLINICAL COUTCOMES IN PATIENTS UNDERGOING TRANSCATHETER** **AORTIC VALVE REPLACEMENT; A SINGLE CENTER EXPERIENCE**

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**Objective:** Patients with severe aortic stenosis pre-procedural pulmonary hypertension undergoing transcatheter aortic valve replacement (TAVR) experience decrease in Pulmonary Artery Hypertension (PAH) post procedure. We studied the relationship of pre-procedural PAH to their clinical outcomes.

**Method:** This is a single center retrospective chart review of patients who underwent TAVR from December, 2012 to August, 2016 using pooled data from electronic medical records. The patients were divided into two groups: Group A with no or mild PAH (≤50 mm Hg) versus Group B with moderate/severe PAH (>50 mm Hg). The post procedure echocardiogram was done within 6 months post TAVR. The clinical outcomes were compared in two groups in terms of 30 days and 1 year morality, MACE (acute myocardial infarction, stroke and death). Statistical analysis was performed using both paired and independent two-sample student t tests, as well as linear regression.

**Results:** Of the total 244 patient enrolled, we had complete data on 213 patients, There were 159 patients in group A with average age of 82.5 ± 7.6 years and 61% of males versus 54 patients in the group B with average age of 83±9 years and 41% of males. The average PAH in Group A pre-procedure was 36.1±9.1 mmHg while the Group B had 59.8±8.1 mmHg. The 30-day (3% vs 0%, p <0.001) and 1-year mortality (8%vs0%, p <0.001) was higher in patients with mild or no PAH versus none in moderate to high PAH. Similar trend was seen in Group B in regards to MACE events with lower in Group B with 1.9% patents versus in 15% in Group A with no or mild PAH pre-procedure. In multivariate analysis, systolic pulmonary artery pressure and chronic lung disease were identified as independent predictors for mortality at 1 year.

**Conclusion:** PAH has a common co-morbid association with severe aortic stenosis in patients undergoing TAVR. Significantly elevated pulmonary artery pressures at baseline are a poor prognostic factor and should be considered while performing pre-procedural assessment of the patients. In our case surprisingly low or no PAH had poor outcomes.