**PREVALENCE AND CLINICAL IMPLICATIONS OF LEFT VENTRICULAR HYPERTROPHY BY VOLTAGE CRITERIA IN TAVR RECIPIENTS**

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**Introduction**: LVH is associated with an increased morbidity and mortality in a broad spectrum of disorders, including patients with severe aortic stenosis undergoing TAVR. The sensitivity electrocardiographic LVH in the general population is low, but the sensitivity of ECG-LVH in patients undergoing TAVR is unknown. We evaluated the sensitivity and clinical significance of LVH by ECG criteria in the TAVR population.

**Methods**: A retrospective chart review was conducted on 401 consecutive TAVR patients (57.7% females, transfemoral approach in 59.3%, 77.9% with Sapien valve) without ventricular-paced rhythm. ECG data was collected and analyzed by Sokolow-Lyon and Cornell voltage criteria.

**Results**: LVH by echocardiographic criteria was present in all patients. Only 37% of patients had LVH by Cornell Voltage and 25% by Sokolow-Lyon criteria. Both voltage criteria were present and concordant in 15% of Pre-TAVR ECGs and in 53% of patients neither criteria was suggestive for LVH, indicative of poor concordance between these two commonly used ECG criteria for LVH (p<0.0001). Patients with LVH by ECG did not have an increased hospital length of stay (8.75 ± 7.285 vs 8.66 ±7.92 days, p=0.914), ICU length of stay (109 ± 106 vs 122 ± 183 hours, p=0.479), or hospital mortality (23 vs. 28%, p=0.293). However, post-TAVR high grade block (25.1% vs 13.8% p=0.005) and new LBBB (25.7% vs 14% p=0.0038) were more common in patient with pre-TAVR LVH by ECG and there was also a trend towards increased need for new permanent pacemaker (18.5% vs 16.3% p=0.55). One year readmission for heart failure diagnosis was not affected by ECG-LVH (7.9 vs. 8.1%, p=0.918).

**Conclusion**: LVH by voltage criteria is present only in half of patients with critical aortic stenosis undergoing TAVR and is not a reliable screening tool. When present, ECG voltage criteria for LVH are associated with increases the risk of post-TAVR conduction abnormalities, which may warrant extended telemetry monitoring.