

Abstract No. **7**

Category: **Arrhythmias and Clinical EP**

Title: **Syncope in heart transplant patients: Clinical implications and association with mortality**

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**Abstract:**

**Background:** The information about implication of syncope in heart transplant patients is limited. There are no specific recommendations on the diagnostic approach. The underlying causes and mechanisms of syncope are unclear.

**Methods:** Cross-sectional analytical observational study. Data was obtained from the heart transplant registry of a fourth-level center in Medellin. Clinical characteristics are compared according to the presence of syncope. Diagnostic methods, mechanism and behavior were described. Bivariate and multivariate analyzes were performed using Kaplan Meier curves and log Rank test.

**Results:** The prevalence of syncope was 3.6% (19 patients). The median age was 42 years (RIQ 7-59), mostly men (89.47%). The first cause of the transplant was non ischemic myocardopathy (52.63%). The most frequent complications of the transplant were: right ventricle failure (26.32%), left ventricular failure (21.05%), severe bleeding (26.32%) and atrioventricular block (AVB) (10.53%). The diagnostic studies were: electrocardiogram (94.44%), with right bundle branch block (72.22%) and first degree AVB (27.78%) being relevant; Holter (57.89%), evidenced atrial fibrillation (27.27%) and AVB (90.01%); Tilt test was performed in 2 patients. One was positive for neurocardiogenic syncope; Echocardiography (94.74%) with left ventricle ejection fraction was 45% (15-60); Coronary angiography in 4 patients (42.11%), 2 had coronary disease and 2 graft vasculopathy; Endomyocardial biopsy (57.89%), in acute rejection, 45.45%; Markers of humoral rejection in 2 patients, one result positive. Pacemakers were implanted in 6 of 7 patients with advanced AVB and the other was considered transient associated with acute rejection. The cause of the syncope was AVB (36.84%), neurogenic syncope (10.53%), supraventricular arrhythmia (5.36%), sinus node dysfunction (5.26%) and unknown (42.11%). The Kaplan Meier curve shows differences in survival days ( $p = 0.05$ ).

**Conclusion:** Syncope is associated with differences in survival time. AV conduction disorders are frequent and were found in about half of patients; but the underlying mechanism is still unknown despite the exhaustive diagnostic evaluation.