Abstract No.   **11**
Category: **Arrhythmias and Clinical EP**
Title: **Epidemiology of First Arrhythmic Event after Cardio-defibrillators Implantation in Chagas Heart Disease**

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Abstract:

Background: Chagas Heart Disease (CHD) is becoming a health problem even in non-endemic areas because of immigration currents. Sudden cardiac death (SCD) due to ventricular arrhythmias (ventricular tachycardia-VT or ventricular fibrillation-VF) is a common presentation. Cardio-defibrillators (ICD) have been implanted in CHD patients but their effectiveness remains to be proved and there is evidence that ventricular arrhythmias in CHD carry a more ominous prognosis than in other cardiomyopathies.

Objectives: To investigate the type of first arrhythmic event and if any demographic or clinical characteristics could explain the type of arrhythmic event after ICD implantation.

Methods: We prospectively evaluated CHD patients with an ICD for secondary prevention. Demographic, laboratorial and clinical parameters at the time of ICD implantation and also the type of the first arrhythmic event were collected. Descriptive statistics and comparison tests were used and a p-value<0.05 was considered significant.

Results: 92 CHD (65 men; 59,8±12 years-old) were evaluated. During follow-up, the first event after ICD implantation was VT in 76% and FV in 24% of the patients. Those presenting FV were younger than those with VT (55±16 vs 61±10years-old; p=0.02). Beta-blocker and amiodarone were similarly used in patients with both presentation types. Left ventricular ejection fraction (43±17 vs 41±10%; p=0.70) and Rassi score (9.3±3.4 vs 9.2±4.4; p=0.9) were similar between VT and FV groups. Also time for the first event was similar between VT and VF (438±606 vs 497±792 days; p=0.71). Delivered therapy was effective in all cases (for VT: 34 received ATP only, 14 ATP and shock, 13 had spontaneous reversal and 9 only shock; for VF: 17 received shock, 4 received ATP and shock and 1 reverted during ATP).

Conclusions: VT is the most common arrhythmic presentation in CHD after an ICD is implanted for secondary prevention and the majority reverted with ATP or spontaneously. VF patients were younger and shock was the most used treatment. No deaths occurred during the first event. These results indicate that ICD programming prioritizing ATP should be the preferential strategy in CHD patients treated for secondary prevention.