



# Arrhythmias

## REDUCTION OF ARRHYTHMIAS BY A PROTOCOL FOR TREATMENT OF CATECHOLAMINERGIC POLYMORPHIC VENTRICULAR TACHYCARDIA

Poster Contributions

Poster Sessions, Expo North

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**Background:** Catecholaminergic polymorphic ventricular tachycardia is an inherited disorder characterized by adrenergically mediated ventricular arrhythmias causing sudden cardiac death in young individuals with structurally normal hearts and normal basal ECG. Currently an exercise stress test (ET) is recommended to rule out CPVT. Nothing is reported about the usefulness of serial ET for monitoring and titration of treatment in a population of carriers of a mutation in RyR2 (RyMC). In a large family more than 1400 members with high incidence of SCD, we identified 179 alive RyMC (G357S). A protocol of treatment and follow-up was offered to all family members, reported in other communication in this congress

**Methods:** 1121 ET were performed (median=7) in 150 RyMC. There were created two quantitative Arrhythmia Score to objectify the evolution of arrhythmias. We evaluated the evolution of Arrhythmias Scores (ET #1 to 10), the % theoretical maximum heart rate (TMHR%) and METS (metabolic equivalent of task).

**Results:** The TMHR% and Arrhythmia Scores decreased in successive ET achieving the goal set by the Protocol. Furthermore, the number of METS increased. (Figure 1).

**Conclusions:** The proposed protocol, titrating treatment based on ET results, markedly reduces arrhythmias, diminishing the percentage of theoretical maximum heart rate below target thresholds without decreasing exercise capacity.

