**SHORT-COUPLED TORSADES DE POINTES: IS VENTRICULAR ECTOPY ALWAYS SHORT-COUPLED?**

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Introduction: In patients (pts) with short-coupled torsades de pointes (SC-TdP), premature ventricular complexes (PVCs) that initiate ventricular arrhythmia are characteristically tightly coupled to the preceding T wave. We attempted to characterize the PVC burden in pts with documented SC-TdP.

Methods: All available ECGs, telemetry strips, Holter recordings, long-term mobile cardiac outpatient telemetry recordings (LTMCOTR) in pts with SC-TdP were analyzed for recorded PVCs. We measured PVC coupling interval, the preceding sinus cycle length, and the preceding QT interval. Prematurity Index (PI) was calculated as the ratio of the PVC coupling interval to the preceding sinus cycle length. QT Index (QT-I) was calculated as the ratio of the PVC coupling interval to the QT interval of the preceding sinus complex. Based on prior studies, PI of <0.5 and QT-I of <0.85 were used to define a PVC as being short coupled.

Results: 9pts with documented SC-TdP were identified. We analyzed data for 7pts in whom data on PVCs were available. 73-ECGs, 217-rhythm strips, 4-Holters and

2-LTMCOTR were reviewed. A total of 243-PVCs that did not initiate TdP were analyzed, mean=34.7 PVCs per pt (range=4-108). Mean PVC coupling interval was 470ms (range=280-850ms). Mean PI=0.4(range=0.24-1.04), and the mean QT-I=1.18 (range=0.5-2.1). Of 243 PVCs, 141(58.0%) had PI>0.5 and 163 PVCs (67.1%) had

QT-I>0.85.

Conclusion: In patients with documented SC-TdP, PVC coupling intervals are variable, and more than half are not short coupled. When considering SC-TdP in the differential diagnosis of abrupt syncope, the absence of short coupling does not necessarily exclude this diagnosis.