Ventricular Tachycardia Arising From Aortomitral Continuity: The Similarity of Electrocardiographic Characteristic of Left Ventricle Outflow Tract Tachycardia

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Background: The ECG of left ventricular outflow tract (LVOT) arrhythmias ventricular can mimic each other because of their anatomical vicinity.

Case illustration: A 55 years-old man came with a chief complain of palpitation. ECG showed sinus rhythm and frequent premature ventricular contraction (PVC) with inferior axis, qR pattern in lead V1 with no transition zone and absence of S wave in lead V5 or V6. Holter monitoring showed non sustained VT. EP study was performed with 3-D mapping and showed the origin of PVC near left coronary cusp of the aorta. Radio frequency ablation was performed and terminate the PVC. Holter monitoring post procedure showed no significant reduction of PVC burden with the same morphology. Second attempt for the RF ablation was performed and showed that the origin of PVC its on the aortomitral continuity (AMC). Holter monitoring post procedure evaluation showed significant reduction of PVC burden

Conclusion: Patients with LVOT VT display common electrocardiographic features, probably due to the close proximity of those locations. Mapping at AMC sholud be considered before an attempt of ablation in the aortic cusp.

Keywords: Left ventricular outflow track ventricular tachycardia, aortomitral continuity, electrocardiographic