Idiopathic Fascicular Ventricular Tachycardia
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ABSTRACT
A 38 years male non hypertensive and non diabetic presented in casualty at 11pm with history of palpitations since morning. on examination, he has tachycardia with systolic BP of 70mm Hg with profuse sweating. ECG was showing broad QRS tachycardia with RBBB with RAD a rare type of fascicular ventricular tachycardia which was reverted to NSR by 200J DC shock due to hemodyanamic compromise. Such VTs also respond to calcium channel blockers like Verapamil.

38 years old male patient presented with palpitations and profuse sweating since last eight hours on the day of admission with a systolic blood pressure of 70 mmHg of Hg. His ECG showed ventricular tachycardia. He reverted to Normal sinus rhythm after 200J of DC Shock. His ECHO and Routine Blood investigations were within normal limits. He was discharged on Tablet Verapamil 40mgm three times a day with advice of Radio-frequency ablation.

This ECG is of an uncommon form of fascicular VT (left anterior) showing RBBB pattern and Right Axis Deviation. It has a QRS duration of 120-140
msec with a heart rate of 187 beats/sec.

In general ventricular tachycardias have wide QRS complexes. One of the earliest descriptions of ventricular tachycardia (VT) with a Narrow QRS complex was by Cohen et al in 1972.1

Idiopathic fascicular ventricular tachycardia has been classified into three subtypes -

(i) Left posterior fascicular VT with a right bundle branch block (RBBB) pattern and left axis deviation (common form).
(ii) Left anterior fascicular VT with RBBB pattern and right-axis deviation (uncommon form).
(iii) Upper septal fascicular VT with a narrow QRS and normal axis configuration (rare form).2

Zipes et al postulated that the origin of the tachycardia was localized to a small region of reentry or triggered automaticity located in the posteroinferior left ventricle, close to the posterior fascicle of the left bundle branch.3

These VTs show good response to Verapamil suggesting a role of slow invert calcium channel in the genesis of Arrhythmia.4 Klein et al (1992) reported cure of ILVT by radiofrequency catheter ablation.5 Since then radiofrequency has remained the procedure of choice.

References: