Exceptional Seizure-Like Presentation of Torsades De Pointes

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Abstract

We present the case of a 40-year-old male who experienced a seizure-like episode, later diagnosed as torsade's de pointes (TDP), highlighting the diagnostic and management challenges of this atypical presentation. The episode characterized by generalized shaking without tongue biting, incontinence, or postictal confusion was triggered by an R-on-T phenomenon seen on ECG despite a normal QTc interval of 430 ms.

Further evaluation revealed short-coupled premature ventricular contractions (PVCs), non-sustained TDP, and significant coronary artery stenosis. Cardiac magnetic resonance imaging confirmed ischemic myocardial injury with moderate left ventricular dysfunction (ejection fraction: 38%). Acute management involved intravenous antiarrhythmics, direct current cardioversion, and temporary pacing at 100 bpm to prevent recurrent TDP episodes. Definitive treatment included percutaneous coronary intervention with drug-eluting stent placement in the left anterior descending artery.

During hospitalization, the patient experienced ventricular fibrillation requiring advanced life support and resuscitation. A subcutaneous implantable cardioverter-defibrillator (ICD) was recommended for secondary prevention of life-threatening arrhythmias.

This case underscores the importance of considering cardiac arrhythmias, particularly TDP in the differential diagnosis of seizure-like episodes, even in patients with normal QT intervals. It also highlights the critical interplay of R-on-T phenomena, PVCs, and myocardial ischemia in triggering TDP emphasizing the need for comprehensive cardiac evaluation. This unique presentation serves as a vivid reminder of the life-saving potential of timely multidisciplinary intervention in complex arrhythmic cases.