FEVER-INDUCED BRUGADA PATTERN MASQUERADING AS ACUTE ST ELEVATION MYOCARDIAL INFARCTION

Poster Contributions
Poster Hall B1
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Background: Brugada Syndrome is a rare, but well documented cause of sudden cardiac death or sustained ventricular tachycardia with characteristic ST segment elevations. Brugada Pattern, on the other hand, may present transiently in asymptomatic patients with identical ST segment morphology, triggered by febrile episodes.

Case: A 53-year-old Hispanic woman presented with a 2-day history of fever, chills and excessive sweating. Her medical history included hypertension and dyslipidemia. Family history was significant for hypertension, diabetes and premature deaths of her brother, mother and aunt. Physical examination was significant for a temperature of 104.7 F and heart rate of 107, blood pressure of 97/65 mmHg. No acute findings were noted on her initial chest x-ray and electrocardiogram (EKG). Cultures were drawn and the patient was started on antibiotics. Over the next 2 hours her blood pressure dropped to 84/55 and she began to complain of chest tightness, which was substernal, non-radiating and associated with nausea and diaphoresis.

Decision Making: A repeat EKG showed 4mm ST segment elevation in lead V2 and 2mm ST segment elevation in lead V3. After administering aspirin and plavix, patient was rushed for urgent cardiac catheterization, which showed clear coronaries with no signs of blockage or spasm. Upon reanalyzing the EKG, the ST elevations had classical morphology of Type-1 Brugada pattern. The patient's troponin and electrolyte levels were within normal limits. Over the next 36 hours patient's fever subsided and her hemodynamic status improved significantly. Repeat EKG done after 2 days showed complete resolution of the ST segment elevation with return to baseline and no signs of a pathological Q wave. An Electrophysiology consult was placed and, given her family history of sudden death, the patient underwent an Implantable Cardioverter-Defibrillator placement. Patient continued to have normal ST segments on EKG at her one-month follow-up visit.

Conclusion: A high index of suspicion is needed in the diagnosis of Brugada pattern in patients presenting with fever and ST segment elevation. A careful assessment of their family history becomes of paramount importance in these cases.