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Malignant Ventricular Arrhythmia in a Fatal Thyroid Storm

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Case Presentation

A 34-year-old previously healthy lady presented to the Emergency Department with persistent vomiting and diarrhoea for 2 days. She also reported a low-grade fever, central chest pain with a pain score of 4/10 and palpitations just prior to presentation. No orthopnoea, paroxysmal nocturnal dyspnoea or reduced effort tolerance were reported. On clinical evaluation, she was somnolent, comfortable on room air and able to converse in full sentences. She was tachycardic at a rate of 160 bpm, hypotensive at 100/68 mmHg and afebrile at 37.2°C. She was found to have profuse sweating, cold peripheries and mild respiratory distress. Chest auscultation revealed bibasal inspiratory fine crepitations and regular S1 S2 heart sounds with no murmurs. **Figure 1** shows her ECG tracing. Biochemically, she was hyponatraemic (129 mmol/L) and had markedly elevated creatine kinase with a CK-MB index of 5.7%. Plasma potassium, magnesium and calcium were within reference ranges.

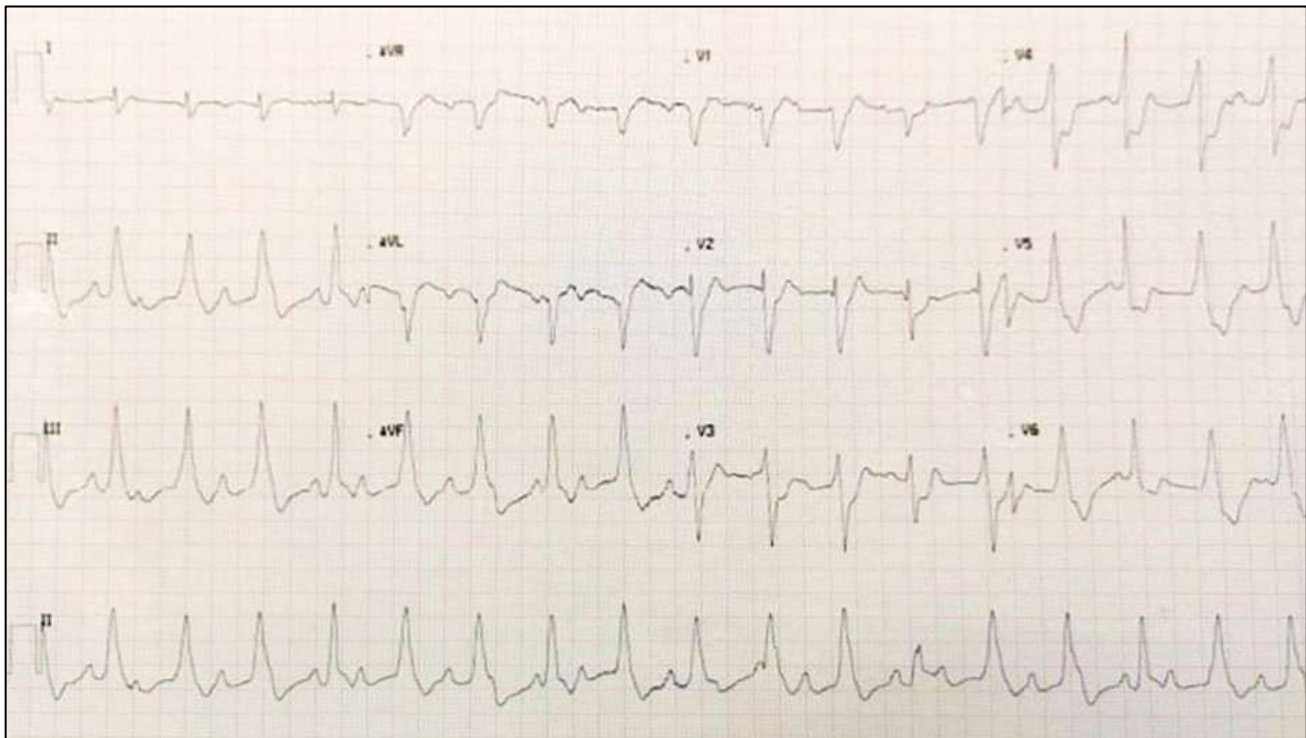


Figure 1 Broad complex tachycardia on 12-lead electrocardiogram.

Question 1: What is the electrocardiogram (ECG) finding?

- A. Atrial fibrillation with bundle branch block
- B. Fascicular ventricular tachycardia
- C. Left bundle branch block
- D. Supraventricular tachycardia with aberrancy
- E. Ventricular fibrillation