

CONTINUING MEDICAL EDUCATION ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

Electrocardiogram Quiz – Case 33

An adult male, homeless beggar, in early twenties was brought in surgery emergency by paramedics with complains of pain abdomen. He was shivering with very meagre clothes on him. All the routine blood investigations and chest X-ray of the patient turned out to be normal. His electrocardiogram (ECG) showed a special pattern (fig. 1). Ultrasound sonography test (USG)-(abdominal/pelvic) of the patient revealed acute appendicitis. The cardiac enzymes and the electrolytes were found to be in the normal range. He was disoriented, agitated

and his temperature was 81.3 °F. The pulse rate was 104/min and blood pressure read 90/60 mmHg.

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ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2017, 34(2):282–283

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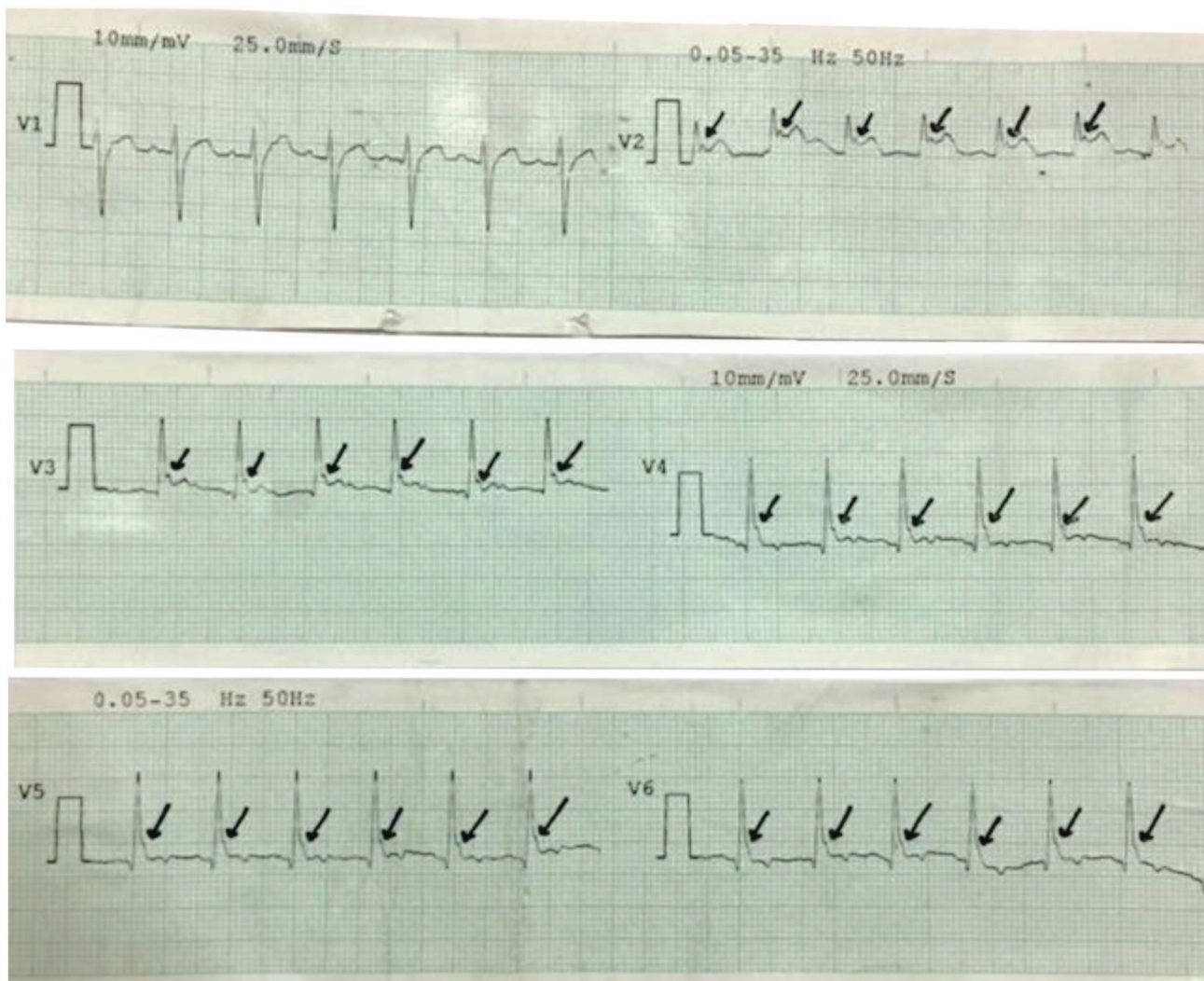


Figure 1

Comment

Osborn waves, also known as J waves, camel-hump waves, and hypothermic waves, are usually best seen as hump-like positive deflection of J point in the lateral precordial leads and as negative deflection in AVR and V1. They become more prominent as the body temperature drops, and they regress gradually with re-warming. Most cases of hypothermia are associated with bradycardia, and the association of Osborn waves with tachycardia is quite rare with only few reports from the available medical English literature. The ECG is showing sinus tachycardia with rate of 125/min, J-waves in leads V2–V6 (marked with arrows) and shivering artifacts.

References

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3. ILIA R, OVSYSHCHER I, RUDNIK L, GUERON M. Atypical ventricular tachycardia and alternating Osborn waves induced by spontaneous mild hypothermia. *Pediatr Cardiol* 1988, 9:63–65

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Diagnosis: Osborn waves with tachycardia
