ECG Challenge: Chills Down My Spine

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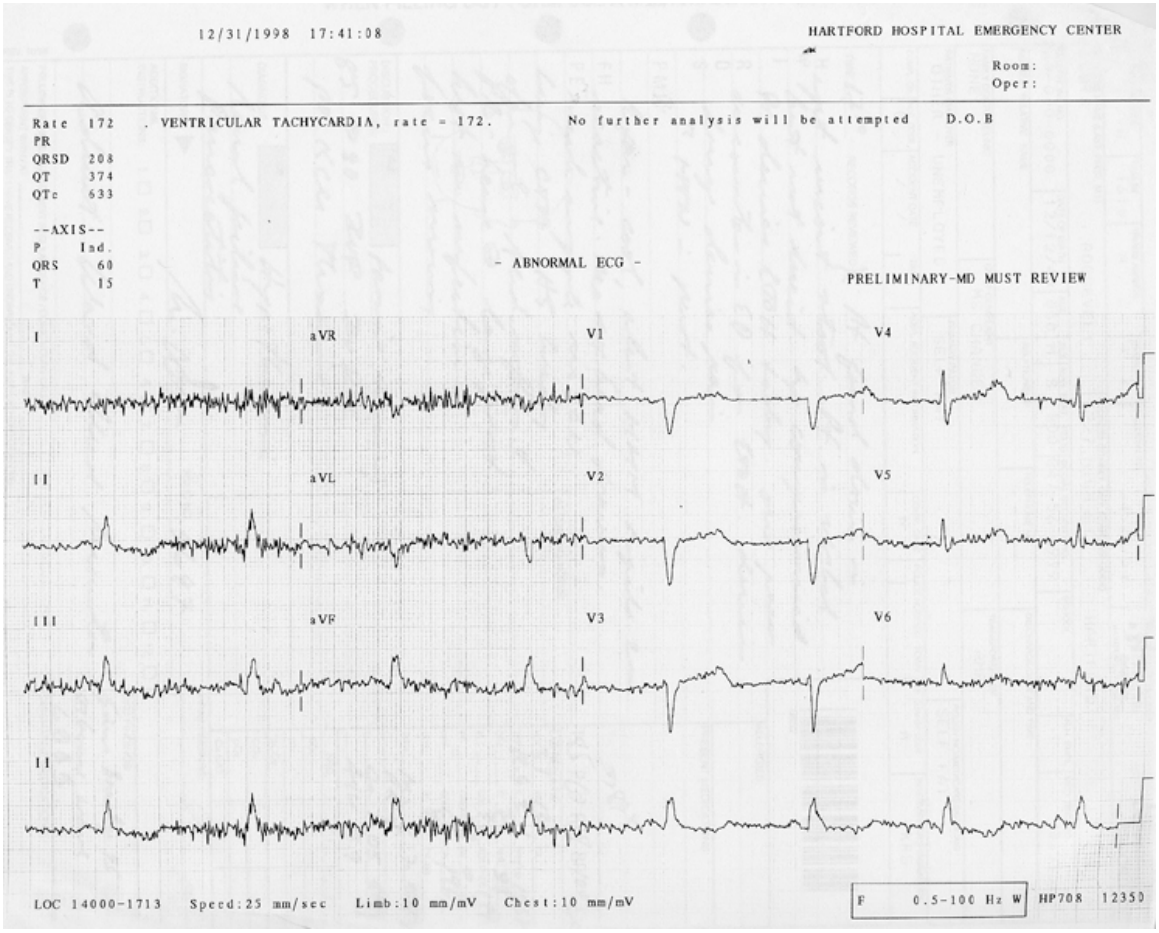
MeSH Words: ECG, Hypothermia, Osborne

Case History:

A 50 year old man was found on the floor of his apartment, incontinent of stool and unkempt. He has a history of alcohol abuse and hypertension. He lives alone. EMS arrives on scene to find him alert and confused, vital signs are pulse 60 respiratory rate 18 BP 100/60. Upon your exam you find a disheveled man, who appears older than his age. He looks dehydrated but is in no respiratory distress. A routine EKG is done and shown below.

What is your interpretation?



Interpretation:

The first question upon seeing this EKG is not about rate, axis, or rythm, but rather about the patient. Did the nurse take his temperature? In fact she did and it was 86 F (30 C).

Despite the computer reading of ventricular tachycardia, and the apparently poor quality of the baseline tracing, with the above data in mind one can see that this is a classic EKG of a hypothermic patient. The undulating baseline is due to shivering and the slurred terminal R wave is known as an Osborne wave and best seen in the tracing of lead II. One can also make out regularly conducting P waves in this lead.

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