Electrocardiographic Changes in Accidental Hypothermia

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A 73-year-old woman with depressive disorder was found unconscious at home by her daughter, and was admitted to our hospital. On admission, her body temperature was 28.0. Electrocardiogram (ECG) showed sinus bradycardia and prolonged QT interval (Picture 1 left panel). Prominent J wave was found in leads V3-6 (1). The small notch in leads I, III, aV1 and V2 was also indicative of J wave (arrows). Laboratory studies showed the following findings: blood glucose, 226 mg/dL; sodium, 134 mEq/L; potassium, 4.8 mEq/L; magnesium, 1.9 mg/dL. She was rewarmed immediately after admission. After 3 hours, her body temperature increased to 30.3, and repeat ECG showed incomplete resolution of the J waves (Picture 1 middle panel). After 24 hours, her body temperature and consciousness returned to normal, and the J waves disappeared (Picture 1 right panel). Head computed tomography showed no remarkable findings. She was fully recovered and discharged 12 days later.

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Reference


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