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**Images in Electrophysiology**

doi:10.1093/europace/euq424
Online publish-ahead-of-print 3 December 2010

**Giant J-wave (Osborn wave) unrelated to hypothermia**

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A 30-year-old male was admitted for gastroenteritis with abnormal serum calcium [ionized Ca\(^{2+}\) (ICa) of 4.1 mg/dL] which was corrected intravenously. An ECG recorded due to palpitations showed atrial fibrillation with giant J-waves (Figure 1A). Blood tests demonstrated iatrogenic hypercalcaemia (ICA 8.5 mg/dL). Electrocardiographic abnormalities resolved with ICa correction (Figure 1B).

J-waves in hypercalcaemia are presumably due to an increase in the calcium-activated outward current and a decrease in the inward calcium current. This lead to all-or-none repolarization of the action potential (end of Phase 1 in the epicardium), creating an Ito channel-mediated transmural voltage gradient during ventricular repolarization.

**Conflict of interest:** none declared.