



Vertebral fracture resulting from cardioversion for atrial fibrillation

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Received: 17 July 2018 / Accepted: 25 September 2018 / Published online: 4 October 2018
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Keywords Cardioversion · Atrial fibrillation · Complications · Adverse event

A 54-year-old male with newly diagnosed, persistent atrial fibrillation underwent elective cardioversion. His history included Meniere's disease, but no history of fractures,



Fig. 1 Magnetic resonance imaging. Sagittal plane of the vertebrae post cardioversion showing a fracture of the superior T4 endplate, without pre-existing or other predisposing lesions

malignancy, back pain, or osteoporosis. No regular medications, exercises regularly, and body mass index is 27. He was started on dabigatran 150 mg BD. The procedure was routine. Defibrillation pads were in the anterior-posterior position. He reverted to sinus rhythm with a single 150J biphasic synchronized shock. Post cardioversion, he woke with localized back pain. He was free of pain pre-procedure. On follow-up, he reported ongoing localized back pain. A MRI confirmed a vertebral fracture (T4 endplate) with acute inflammatory changes suggestive of a recent event, and no obvious predisposing lesions (Fig. 1). His fracture was managed conservatively, with full recovery. There are scarce reports of vertebral fractures with external shocks, but these patients underwent repeated shocks for ventricular arrhythmias, with monophasic defibrillators, using higher energy [1, 2]. This is the first report with a low-voltage, biphasic, elective shock for atrial fibrillation, and this report highlights a potentially under-recognized cause of back pain after cardioversion.

References

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