Cardiac magnetic resonance image of an electrocuted heart

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A 43-year-old man was electrocuted while performing house repairs. Soon, he developed frequent presyncopal episodes associated with fast, regular palpitation. A seven-day Holter monitor revealed episodes of symptomatic ventricular tachycardia. There was no family history of arrhythmia or sudden cardiac death. He had a normal resting electrocardiogram, echocardiography and angiography showed unobstructed coronary arteries. Programmed ventricular stimulation induced fast monomorphic ventricular tachycardia. A cardiac magnetic resonance

image demonstrated mid-wall fibrosis of the mid- to apical lateral left ventricular wall. Patients with known electrocution injury may present late with ventricular arrhythmia. In such cases, focal fibrosis has been documented from myocardial biopsy. The present report presents the first published cardiac magnetic resonance image of a cardiac scar induced by an electrocution injury (Figure 1). The patient was implanted with a cardiac defibrillator and commenced bisoprolol treatment with no further symptoms or arrhythmia.

Figure 1) Electrocardiogram (left panel) and cardiac magnetic resonance image of a cardiac scar (right panels; arrows) induced by an electrocution injury

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