Image of the week

Mesocardiac scars as the substrate of ventricular tachycardia in patients with normal ventricular size and function*+

Cicatrices mesocárdicas como sustrato de taquicardia ventricular en pacientes con tamaño y función ventricular normales

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Fig. 1. Two male patients, aged 75 and 71 years old, with no personal or familiar history of cardiopathy, started with symptomatic sustained ventricular tachycardia (VT). In both patients, coronary catheterisation and echocardiogram were normal. Cardiac magnetic resonance imaging (MRI) confirmed that size and biventricular function were both normal. Late gadolinium enhancement (LGE) detected myocardial fibrosis in the lateral wall of the left ventricle in the first patient (Fig. 1A and 1B, arrows), and it showed myocardial fibrosis at the lateral level of the interventricular septum in the second patient (Fig. 2A and 2B, arrows).

In the absence of cardiopathy, monomorphic VT is considered to be idiopathic with a benign prognosis. Without the MRI, both cases would have been considered ventricular dysrhythmias without cardiopathy. The limited knowledge of the prognosis for this group of patients resulted in the implantation of defibrillators in both patients.

In normal cardiac structure and function, MRI may identify an organic substrate for VT. For this reason, MRI is considered to be essential in the diagnosis of patients with ventricular disrhythmias and a “normal heart.”

Diagnosis: ventricular tachycardia in patients with mesocardiac scars and normal echocardiogram.

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