

Electrical Burn Leads to Apical Left Ventricular Aneurysm

Elektrik Yanığı Apikal Sol Ventriküler Anevrizmaya Yol Açmaktadır

A 37-year-old man presented to the outpatient clinic with the complaint of 3 episodes of syncope. In the past, he has a history of electrical burns 6 years ago but no cardiovascular risk factors. Physical examination yields a left hemithorax chest wall deformity due to electrical burn and postsurgical reconstruction. Electrocardiography demonstrated normal sinus rhythm with pathologic Q wave in lateral leads with inverted T wave in all precordial leads. The transthoracic echocardiography has a poor window, so the CMR was performed. The bright blood and dark blood axial anatomic images showed a loss of integrity and deformity of the left anterior chest wall (Figure 1, panels A and B). Cine sequences showed mildly enlarged left ventricular (LV) size with reduced ejection fraction; 44%, and there is also thinning and aneurysmal formation of mid to apical anteroseptal wall and apical cap (Video 1 and 2*). Late gadolinium sequences

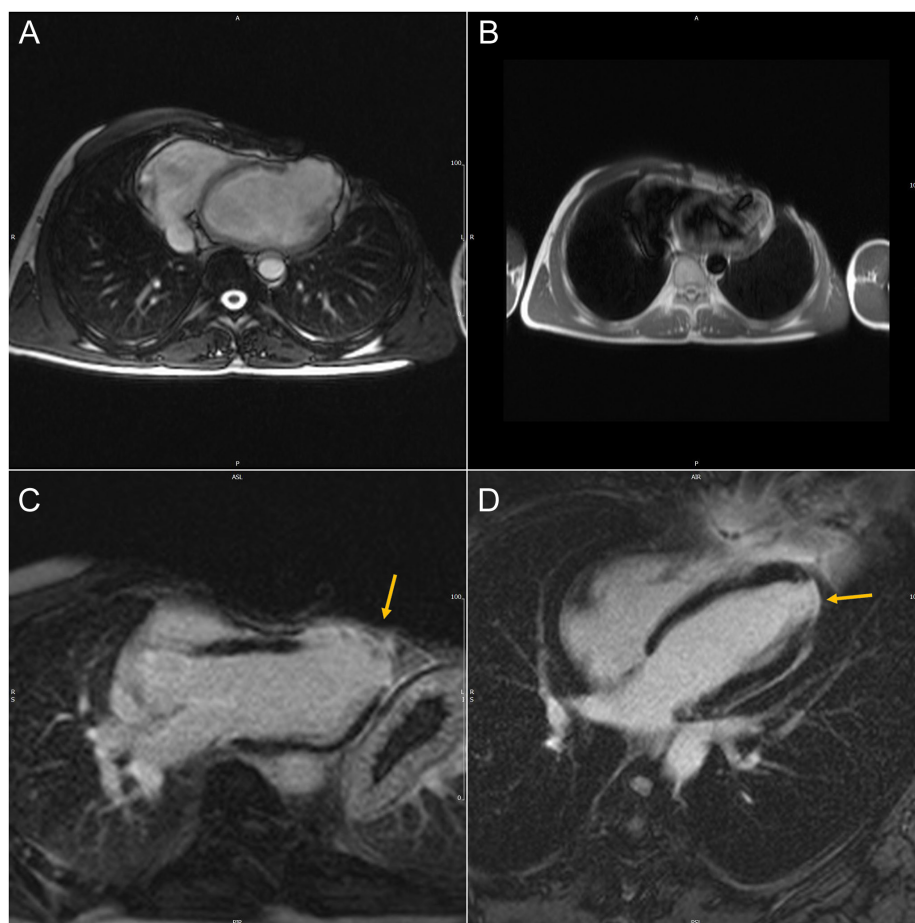


Figure 1. (A, B) Bright blood and dark blood sequences with anterior chest wall deformity and apical aneurysm. (C, D) Late gadolinium sequence with anterior, anteroseptal wall, and apical cap transmural infarction.

CASE IMAGE OLGU GÖRÜNTÜSÜ

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revealed transmural infarction in the mid to apical antero-septal wall and apical cap (Figure 1, panels C and D). The coronary angiography showed normal epicardial coronary arteries. An electrocardiogram using Holter monitoring revealed sustained ventricular tachyarrhythmias. The extensive LV infarction was assumed to be a neglected consequence of electrical burn. The

patient planned for ablation and implanted a cardiac defibrillator. Patients with electrical injury should be worked up vigilantly with high awareness of myocardial damage.

*Supplementary video files associated with this article can be found in the online version of the journal.