

LEAD FRACTURE, A THREATENING PACEMAKER MALFUNCTION: A CASE REPORT

A. Maliki Alaoui, A. Ben el Mekki, J. Ngadi, M. Bennani, H. Bouzelmat, A. Chaib.
Department of Rythmology, Mohammed Vth Military Hospital, Rabat, Morocco.
Medical School, Mohammed V University in Rabat, Morocco.

Corresponding Author:

Amine Maliki Alaoui, MD.
Affiliation: Department of Rythmology, Mohammed Vth Military Hospital, Rabat, Morocco.
E-mail: dr.malikiamine@gmail.com
ORCID ID : <https://orcid.org/0000-0002-1947-3807>

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COMMENTS:

A 60-year-old patient, wearer of a dual-chamber pacemaker for 3 years, presented to the emergency department with transient loss of consciousness causing head trauma. On admission, the patient was conscious and oriented. The vital signs were as follows: temperature 37°C; blood pressure 135/73 mmHg; heart rate 28 bpm; respiratory rate 22 bpm and oxygen saturation of 96% on room air; the rest of the examination was unremarkable. A 12-Lead electrocardiogram reveals a high degree atrioventricular block (**Figure 1**). A radiograph of the chest showed that the ventricular lead of the pacemaker was fractured near the pulse generator (**Figure 2**) but the atrial lead was intact. The broken lead was extracted and replaced by a new one; the patient was discharged uneventfully.

The incidence of lead fractures in pacemakers is about 1%–4%. It results mostly from compression of the lead between the clavicle and the first rib or entrapment of the lead by soft tissue in the costoclavicular space. Some cases of Fractures in pacemaker leads during weightlifting have been reported. Excessive movement of the upper limbs and direct trauma were likely the cause in our patient.

Keywords: Pacemaker, lead fracture, fatal, trauma.

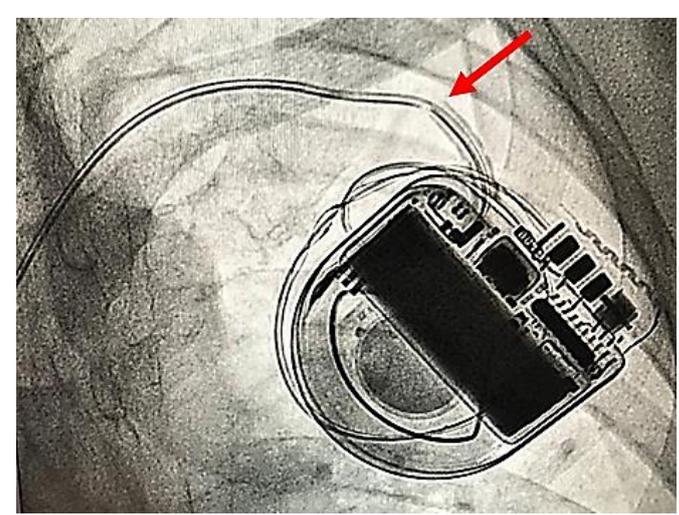


Figure 1: A radiograph of the chest showing pacemaker lead fractured near the pulse generator

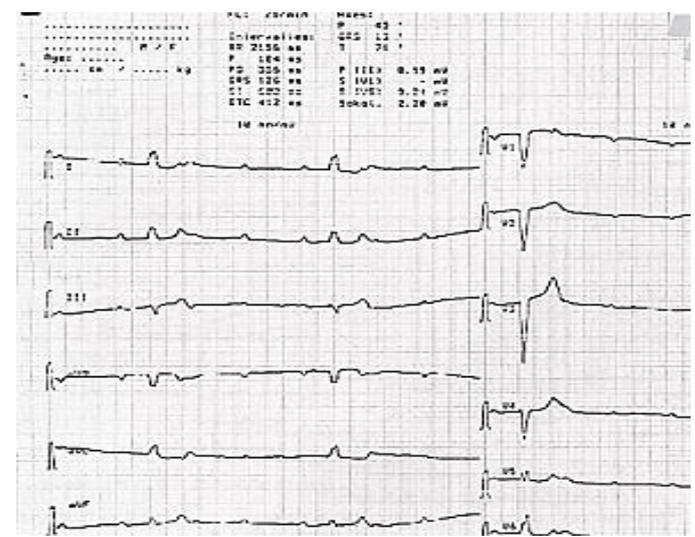


Figure 2: 12-Lead electrocardiogram showing high degree atrioventricular block with ventricular escape rhythm of 28 bpm.