

## **UC Irvine**

### **Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health**

#### **Title**

Images in Emergency Medicine: Pacemaker Extrusion Causing Chest Pain

#### **Permalink**

<https://escholarship.org/uc/item/0s36k50t>

#### **Journal**

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 9(2)

#### **ISSN**

1936-900X

#### **Author**

Arora, Sanjay

#### **Publication Date**

2008

#### **Copyright Information**

Copyright 2008 by the author(s). All rights reserved unless otherwise indicated. Contact the author(s) for any necessary permissions. Learn more at <https://escholarship.org/terms>

Peer reviewed

# Images in Emergency Medicine: Pacemaker Extrusion Causing Chest Pain

Sanjay Arora, MD

LAC+USC Medical Center, Department of Emergency Medicine

Supervising Section Editor: Mark I. Langdorf MD, MHPE

Submission history: Submitted May 23, 2007; Revision Received June 19, 2007; Accepted August 3, 2007.

Reprints available through open access at [www.westjem.org](http://www.westjem.org)

[WestJEM. 2008;9:126.]

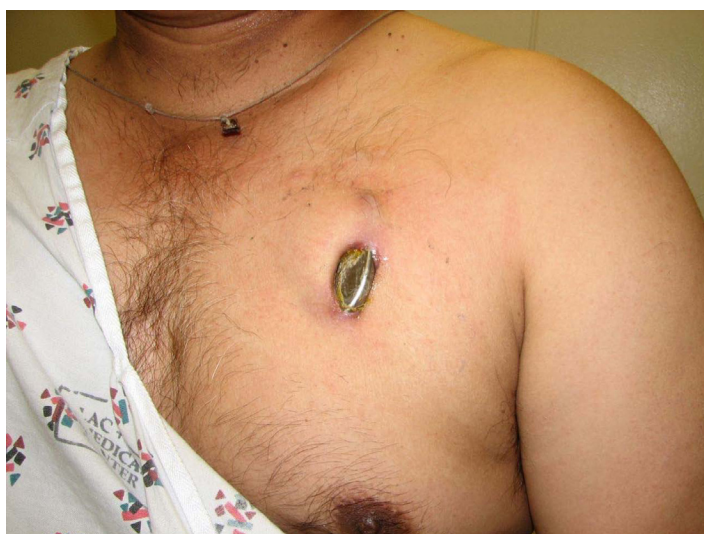


Figure.

A 55-year-old Hispanic male had a pacemaker placed in Mexico approximately one year prior to presenting to the Emergency Department. He noticed minor discomfort in his left chest one month earlier but did not see a physician. The discomfort steadily increased and he saw a small piece of metal poking through the skin. He assumed it was a staple or something minor related to the surgery; however, it gradually increased in size over the next few weeks until he realized it was the pacemaker itself eroding through his chest wall. A cardiology consultation was called, and an EKG showed

that the pacemaker was still functioning normally. He was admitted with a plan for operative repair.

Pacemaker erosion or extrusion has been reported in 0.9% of patients receiving the device.<sup>1</sup> The two main causes are infection and pressure necrosis.<sup>1,2,3</sup> Infection has been shown to be reduced by antibiotic treatment during the peri-placement period, and pressure necrosis appears to be influenced largely by the size of the device, complexity of the connections and technical skill with which the pocket is created.<sup>1,2</sup> After extrusion, the pacemaker should be considered contaminated and removed.

Address for correspondence: Sanjay Arora, MD Department of Emergency Medicine, LAC + USC Medical Center, 1200 N. State Street, Room 1011, Los Angeles, CA 90033. Email: [sanjayar@usc.edu](mailto:sanjayar@usc.edu)

## REFERENCES

1. Shapiro M, Hanon S, Schweitzer P. A Rare, Late Complication after Automated Implantable Cardioverter-Defibrillator Placement. *Indian Pacing and Electrophysiology Journal*. 2004; 213-216.
2. Oneglia C, Gardini A, Benedini G, Rusconi C. Extrusion of a Regularly Stimulating Pacemaker. *International Journal of Cardiology*. 2007; 114:382-383.
3. Parsonnet V, Trivedi A. Pacemaker Extrusion. *Journal of the American Heart Association*. 2000; 102:1192.