

Mass in a pacemaker pocket

Masa w loży stymulatora

Qiang Li

Department of Cardiology, Cardiovascular Hospital of Xiamen University, China

A 64-year-old male was admitted to the outpatient clinic, complaining of a firm mass with tenderness in the right subcutaneous pacemaker pocket. Six years earlier, he had a transvenous dual-chamber pacemaker inserted due to third-degree atrioventricular block. One year after implantation, he found a small subcutaneous nodule in the pocket. He did not follow-up according to the doctor's introduction for no symptoms. During the six years after pacemaker implantation, the nodule developed into a mass gradually, the size of which was about 6×4 cm (Fig. 1A). The mass boundary was clear, with no redness, swelling, or fluctuation, which did not show the signs of pocket infection. Chest computed tomography showed calcifications inside the mass (Fig. 1B). Then, the mass was removed surgically. After being separated from subcutaneous tissue, the mass showed a cone shape (Fig. 1C). When the mass was cut, we found the pacemaker generator was surrounded and lied at the bottom of the cone-shaped mass. A large faint yellow core overlay the pacemaker generator (Fig. 1D). Due to there being no sign of infection in the pocket, we replaced the pacemaker and sutured the incisions. Histological examinations indicated chronic inflammation accompanied by proliferation of fibrous tissue and hyaline degeneration (Fig. 1E). Immuno-histochemical examination showed CKP(-), CD45(++), KI-67<5%, and CD68(+). This mass is rare. To our knowledge, no previous report has shown the human body treating a pacemaker as foreign, developing chronic inflammatory hyperplasia. On one-year follow-up the pacemaker worked well, and no mass or nodule could be found.

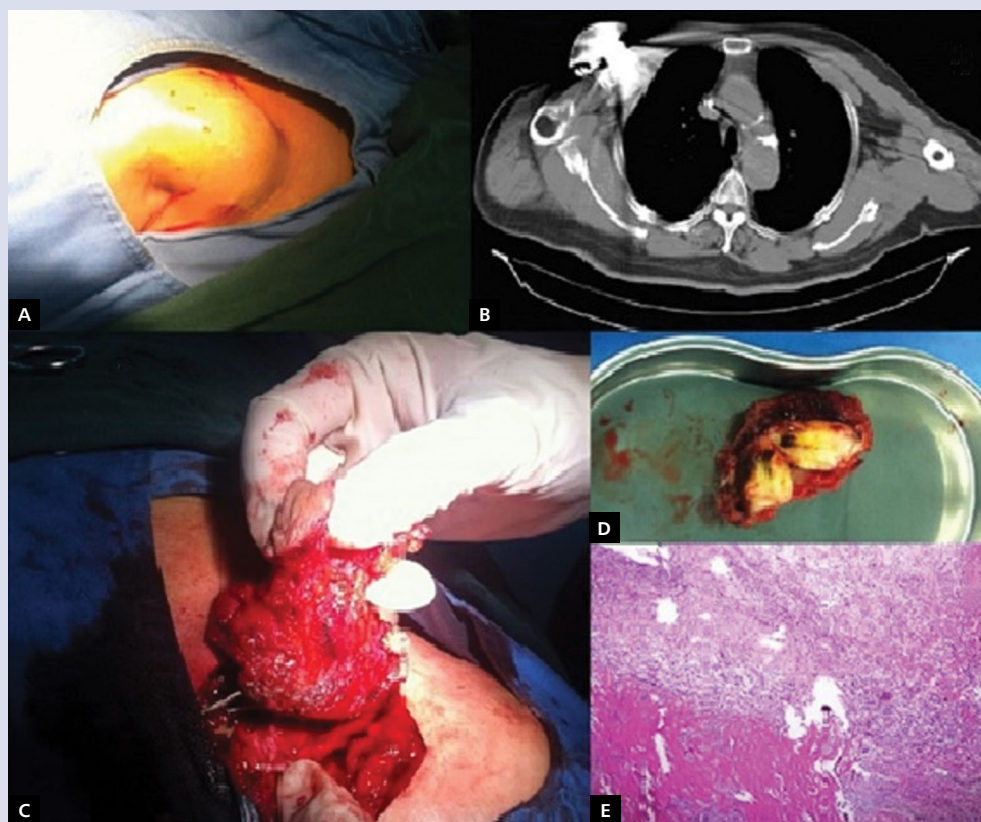


Figure 1. A. Image of subcutaneous mass, which was not cut; B. Image of chest computed tomography; C. Gross anatomy of corn type mass. Note the leads extending into the mass, and the pacemaker becoming the bottom of the mass; D. The mass was cut; E. Haematoxylin-eosin staining showing histopathology changes of mass

Address for correspondence:

Qiang Li, MD, Department of Cardiology, Cardiovascular Hospital of Xiamen University, No.205 Hubin South Road, Xiamen, Fujian Province 361004 China, e-mail: lq@lzu.edu.cn

Conflict of interest: none declared

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