
Gallium-67-Citrate Detection of Infected Automatic Internal Cardiac Defibrillator: A Case Report

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CASE REPORT

A 67-yr-old male presented 8 mo after surgical implantation of an automatic internal cardiac defibrillator (AICD) with fever of unknown origin. Clinical examination suggested the possibility of AICD infection, and ^{67}Ga -citrate imaging was performed to localize a site of infection (1-5). Images of the chest, abdomen and pelvis were obtained at 24 and 48 hr.

SUMMARY

Gallium-67 imaging was used to localize infection to the site of AICD implantation, and also demonstrated the spread of infection along the implanted leads toward the heart.

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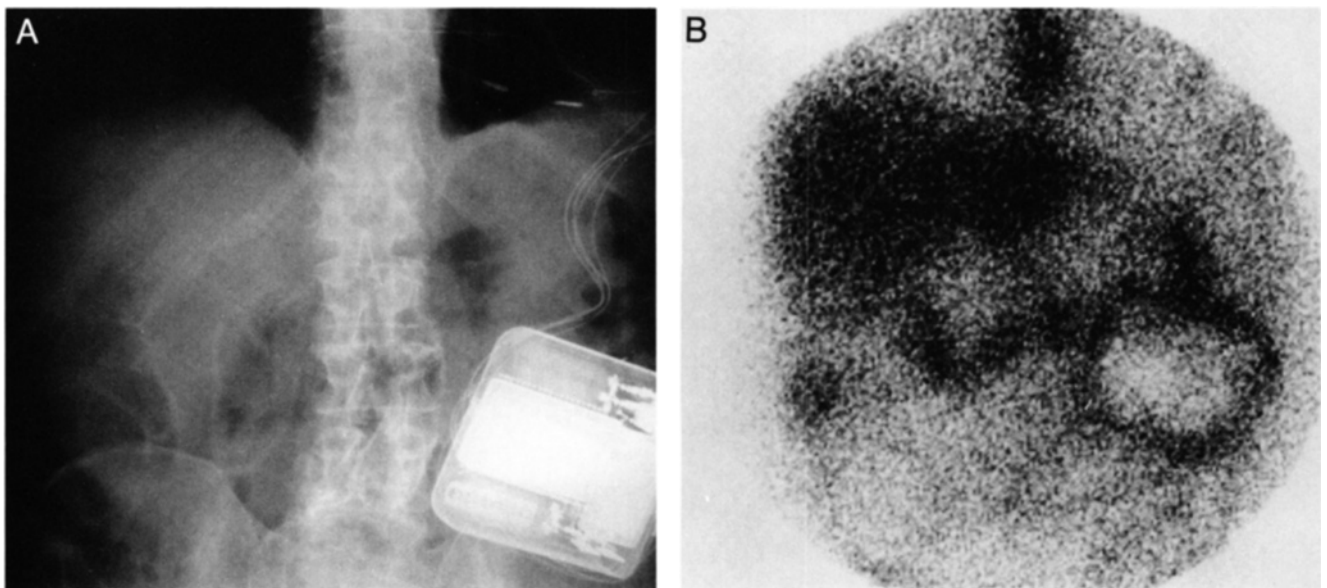


FIGURE 1. (A) AP radiograph of the upper abdomen demonstrates the AICD in the conventional position, with leads extending cephalad toward pads surrounding the heart. Additional bipolar pacemaker leads are also seen. Other findings in the abdomen are unremarkable for age. (B) Anterior image of the same region 48 hr after the intravenous administration of 5 mCi of ^{67}Ga shows a rectangular photopenic zone surrounded by a rim of increased radionuclide activity in the same region as the AICD. Of special note is the linear streak of activity extending cephalad from this region toward the expected region of the heart, suggesting infection is extending along the AICD leads.

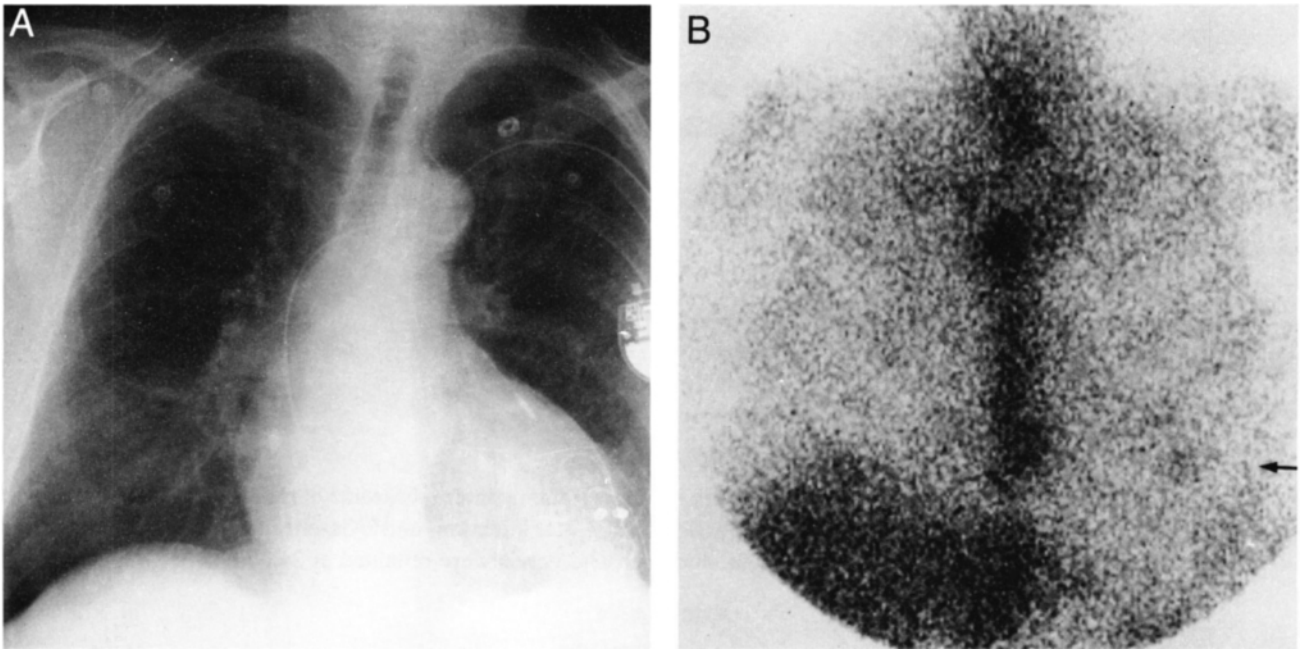


FIGURE 2. (A) PA radiograph of the chest reveals moderate cardiomegaly, pacemaker and leads and pericardiac AICD defibrillation pads. (B) Anterior image from a 48-hr ^{67}Ga scan demonstrates increased activity related to infected AICD leads seen in the lower-most right edge of the image. A small focus of increased uptake overlying the cardiac apex is also seen, implying infectious etiology.