

# Case Report: Cold Defect Caused by Pelvic Pacemaker—The Importance of Clinical Correlation

Rodney D. Raabe and Jeff Janikowski

University of Utah Medical Center, Salt Lake City, Utah

The photopenic area secondary to a pacemaker has been previously encountered and described (1,2) in the chest on perfusion and ventilation scans. In these patients the history was obvious and a readily available chest x-ray was on hand to answer any questions. If there was any difficulty in interpretation, an adequate patient history was an easy solution to identifying this artifact. Belt buckles and other objects in the clothing are easily and routinely screened prior to examinations. Internal artifacts—such as the pacemaker in this case—are usually seen following the scanning procedure. Even when the artifact or cold defect is in an unusual position a simple clinical history will resolve the problem in almost all cases.

An anterior bone scan of a pelvis (Fig. 1) demonstrates a

photopenic region over the left sacroiliac joint in a 72-year-old woman undergoing examination for possible metastatic breast cancer. Cold defects such as this one most often represent metallic artifacts in the patient's gown; however, there were no objects of any sort between the patient's skin and camera. Clinical examination and further history revealed that a cardiac pacemaker had been implanted in the left lower abdomen instead of the chest because of bilateral mastectomies. The pacemaker, also demonstrated on the AP pelvis radiograph (Fig. 2), was the cause of the photopenic region.

This case serves as a reminder that a brief history and dialogue with the patient is often a simple and quick way to assure proper image interpretation.



FIG. 1. Anterior bone scan of pelvis.

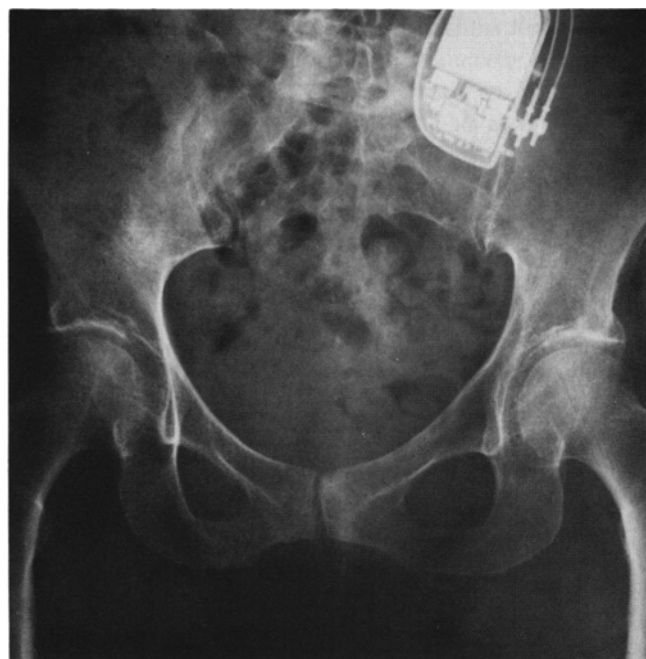


FIG. 2. AP pelvis radiograph.

For reprints contact: Rodney D. Raabe, Division of Nuclear Medicine, Dept. of Radiology, College of Medicine, 1C405 Medical Center, Salt Lake City, UT 84132.

©1982The Society of Nuclear Medicine, Inc.  
0091-4916/82/1004/20901\$2.00/0

## References

1. Wells LD, Bernier DR. Radionuclide imaging artifacts. Chicago, Year Book Medical, 1980:108.
2. Rocha AFG, Harbert JC. *Textbook of nuclear medicine: clinical applications*. Philadelphia, Lea & Febiger, 1979:200.