The "Breast-Pocket" Sign: A Clue to the Possibility of Spurious Radionuclide Uptake: A Case Report

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A 52-yr-old male underwent ^{99m}Tc-MDP whole-body bone scanning to evaluate lumbar back pain. This examination demonstrated a single focus of activity seemingly within the left anterior ribs, suggesting rib fracture or, much less likely, occult metastases.

Closer inspection of the images showed the activity to be between, rather than within, ribs. Examination of the patient revealed a blood-stained (and radionuclide laden) bandage within the shirt breast pocket, which when removed, caused the elimination of the chest wall activity previously noted. This is an example of how close inspection of the images, and patient contact, can sometimes clarify potential artifact.

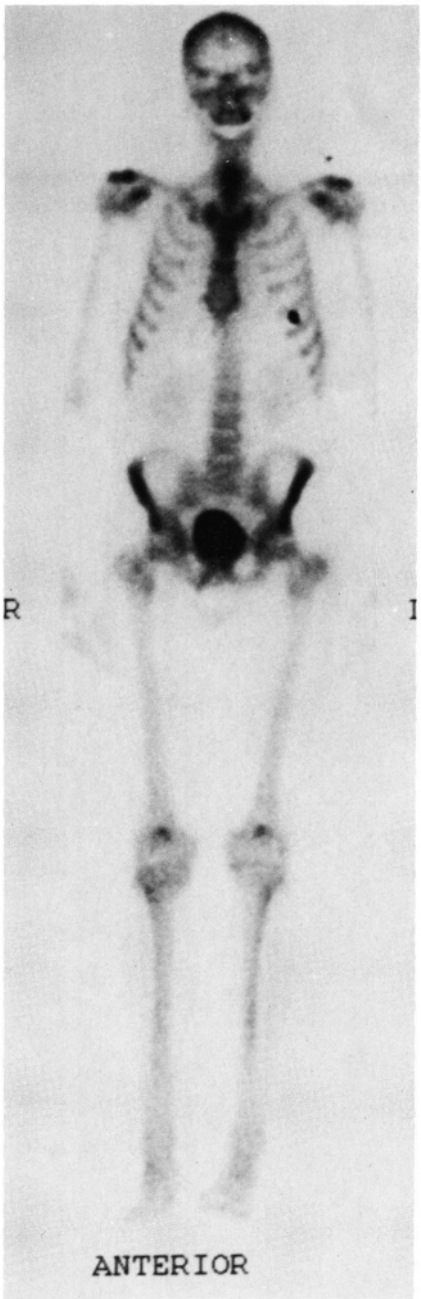

FIGURE 1. Anterior whole-body bone scan image 3 hr after the intravenous administration of 25 mCi of ^{99m}Tc-MDP demonstrates a focus of increased activity seemingly within the left anterior fifth rib. Commonly observed uptake within the joints was the only other finding.

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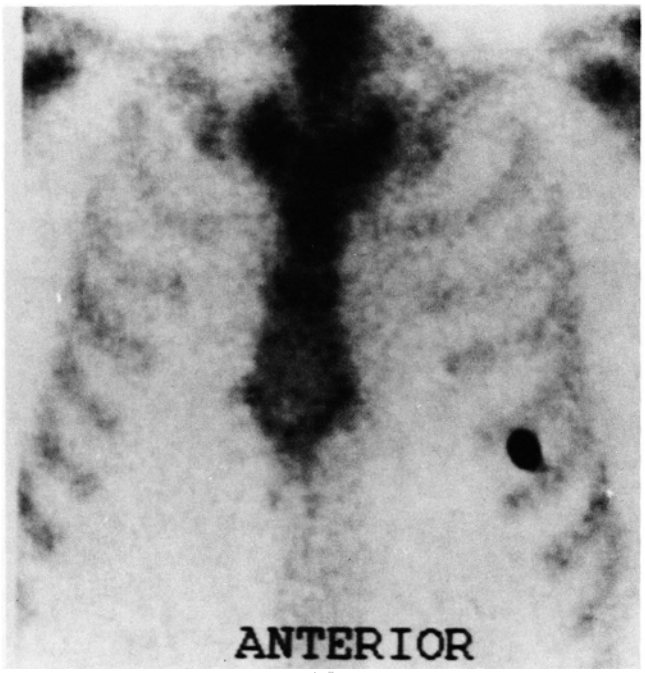

FIGURE 2. Anterior magnification "spot" image of the anterior thorax again shows the focus of activity in the anterior left fifth rib region, however it appears more between than within ribs.

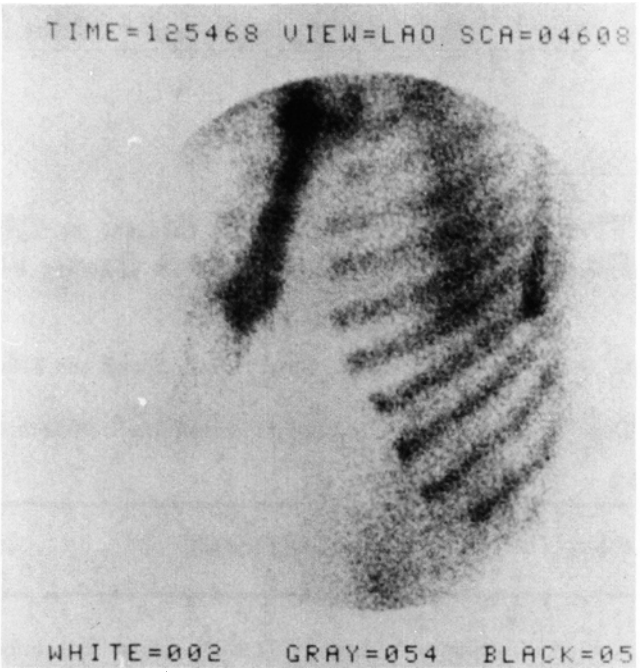

FIGURE 3. Left anterior oblique projection image after speaking with the patient and removing his shirt breast pocket contents demonstrates the elimination of activity in this same region. The patient had removed his injection site bandage, placing it within his shirt breast pocket 1 hr after the intravenous administration of radionuclide.