

# The Whole Body Bone Scan? Case Report

Conrad E. Nagle, Shamil J. Morayati, Sandra Carichner, Beverly Winkes, Renee Cassisi, Rosemarie McGraw, and Evelyn Schane.

*William Beaumont Hospital-Troy, Troy, Michigan*

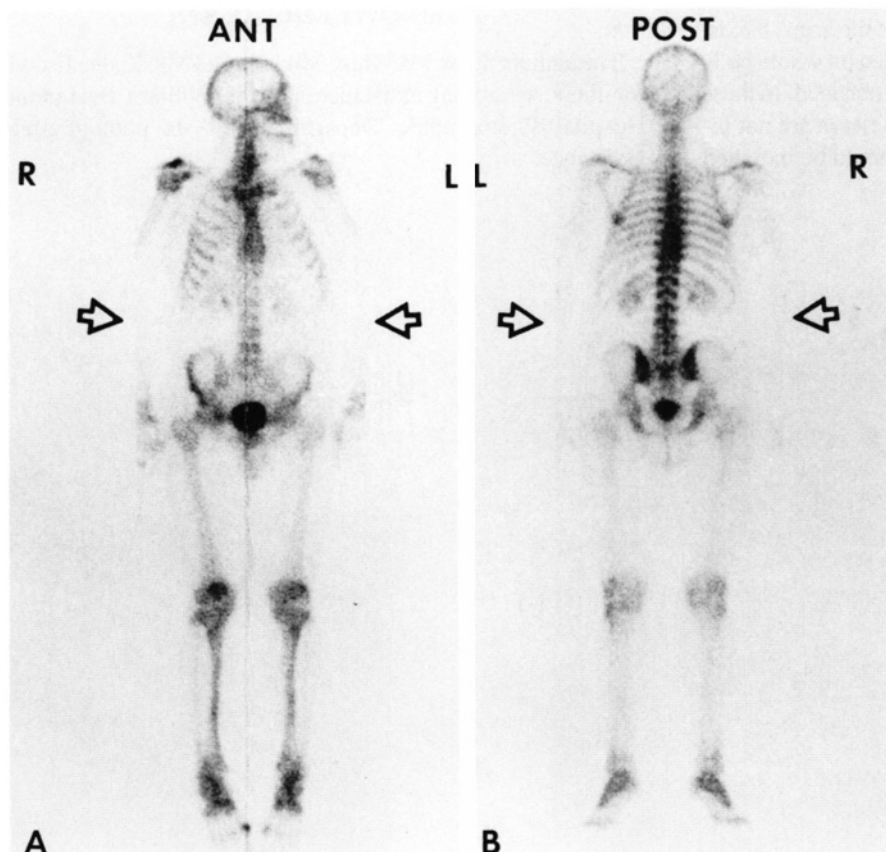
The authors present the case example of a patient whose bone scan did not reveal an ulnar abnormality because the ulnae were not included on the whole body scan image. This interesting case demonstrates the importance of positioning the patient for the whole body scan to include the entire skeleton or obtaining additional spot views of the appendicular or axial skeleton not included on whole body images.

## CASE EXAMPLE

A 57-yr-old male with proven prostate carcinoma and an elevated alkaline phosphatase underwent follow-up bone scinti-

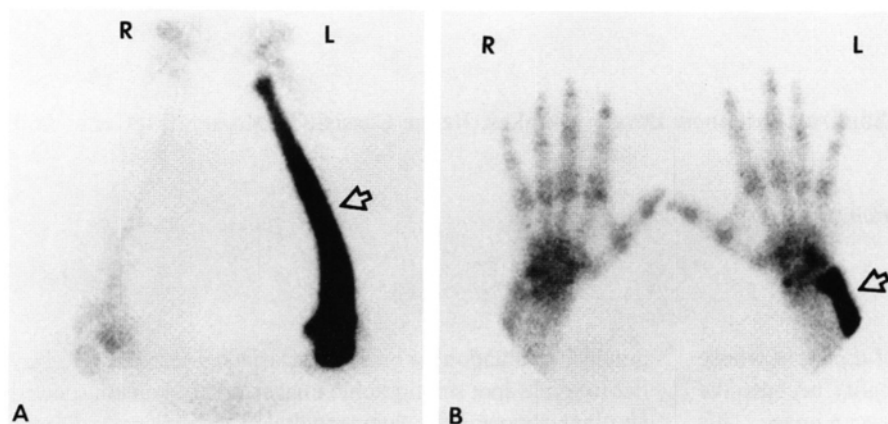
graphy in evaluation for osseous metastatic disease. A year earlier multiple spot scintigraphic images of the skeleton showed an ulnar abnormality, later concluded to be Paget's disease after correlation with radiographs.

Initial whole body scans (Fig. 1A and 1B) shown to the nuclear physician by the technologist were negative with the exception of minor joint changes. A review of the previous scan and report revealed an ulnar abnormality. Based on the previous scan findings, additional spot images (Fig. 2A and 2B) were obtained, demonstrating no change. A significant ulnar abnormality is demonstrated on the spot view that was totally absent on the "whole body image."



**FIG. 1.** Anterior (A) and posterior (B) whole body bone scintigrams. Open arrows point to portions of arms that were not included in the field of view.

For reprints contact: Conrad E. Nagle, M.D., Nuclear Medicine, William Beaumont Hospital-Troy, 44201 Dequindre Rd., Troy, MI 48098.



**FIG. 2.** Spot scintigrams of the forearms (A) and hands (B) immediately following the "whole body scan" in Fig. 1. Open arrow points to left ulna, abnormal secondary to Paget's disease.

## DISCUSSION

This case example emphasizes two basic points for nuclear medicine technologists and physicians: 1) whole body bone scans cannot be considered whole body scans unless the entire skeleton is included; and 2) reviewing previous scans and reports before releasing the patient is of significant value.

Even if bone scan reports are entitled "bone scan" rather than "whole body bone scan", clinicians likely assume that the entire axial and appendicular skeleton has been evaluated. For technical or medical reasons, portions of the arms, hands, feet, or head may occasionally not be included on whole body images. Spot images of these areas should be obtained. In those cases where portions of the appendicular skeleton are not included on any of the images, a statement should be included

on the scan report that those portions of the skeleton were excluded.

One method of including the arms on whole body scans is to position the patient with the anterior aspect of one arm with the anterior body pass and the posterior aspect of the other arm on the posterior body pass. Alternatively, spot scintigrams of the arms and hands can be obtained when not included on whole body images.

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