

FIG. 2. Gamma camera view of ribs with breast prosthesis removed showing abnormal uptake in rib.

shoulder in March 1973 showed changes consistent with a metastatic lesion in the left scapula. A total skeletal scan was ordered prior to a decision about her subsequent management.

The scan was obtained 3 hr after an intravenous dose of 10 mCi ^{99m}Tc -ethane-1-hydroxy-1,1-diphosphonate (EHDP) using an Ohio-Nuclear dual probe. Figure 1 is the anterior projection of the head, neck, and trunk showing extremely intense uptake of the agent in the left shoulder, moderate accumu-

lation in the left breast and chest wall, and a total absence of activity over the right anterior chest wall in the region of the right breast. This last finding was due to a silicone breast prosthesis. Spot views of the area with the prosthesis removed were made with a gamma camera (Nuclear-Chicago Pho/Gamma), revealing an area of increased uptake in the ribs which was previously hidden by the prosthesis (Fig. 2).

We have observed abnormal bone scans due to urine dribbling on clothes and believe that this case report further strengthens the impression that changing into a hospital gown for each procedure will minimize the need for additional views to evaluate artifacts.

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"CLEAR PLATE" TECHNIQUE FOR LOCALIZATION AND ORIENTATION IN RECTILINEAR SCANNING

To localize lesions and to orientate anatomic structures are very important in rectilinear scanning. Various techniques, such as the so-called photodot technique, x-ray technique (1,2), transmission scintigraphy (3), and radiophotoscan (4), have been used. Some techniques are very time consuming, and some lack accuracy. None of them is completely satisfactory. By extending the use of "clear plate" technique, we have devised and utilized another more effective method.

The procedure is as follows: the physician examines the patient, draws anatomic outlines and clinically noticeable lesions on the patient's skin,

and puts two or three cross marks at anatomic landmarks with a felt-tip marker. He then traces the drawings and cross marks with a china marker pencil directly onto the clear x-ray film which is placed on top of a Lucite panel over the area to be scanned. Being guided by the cross marks at the anatomic landmarks, the technician marks two or three photodots on the scan film through a scanner and does the scan. After the scan is completed and processed, the scan and the marked clear x-ray film are superimposed according to the cross marks on the clear x-ray film and photodots on the scan, and then unilaterally fixed together with a piece of Scotch

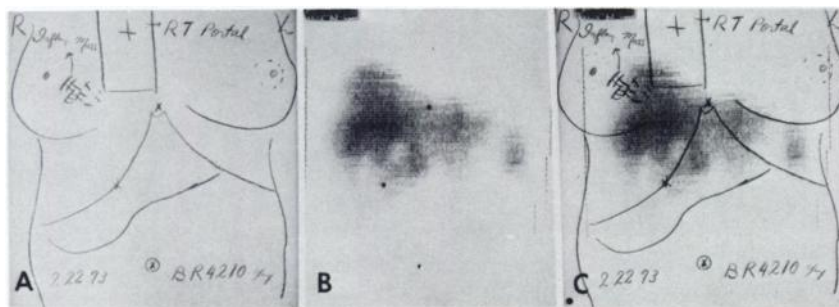


FIG. 1. Liver scan (^{99m}Tc -sulfur colloid) using "clear plate" technique. Forty-seven-year-old female patient had inflammatory carcinoma of right breast with metastases to liver. (A) Drawings on clear x-ray film, traced from patient's skin by supervising physician. Note patient's anatomic outlines, inflammatory mass on right breast, parasternal radiotherapy portal, palpable liver and cross marks at xyphoid process, umbilicus and right costal margin. (B) Liver scan with three photodots. (C) Superimposition of marked clear x-ray film and scan.

tape. They can therefore be opened or closed as a book during interpretation.

The method has been successfully used in liver, bone, lung, kidney, salivary gland, thyroid, and pancreas scans, cisternogram, ^{67}Ga -citrate scan, and radionuclide lymphangiography. It is also very useful as an aid in radiotherapy treatment portal setup. Figure 1 shows a liver scan using the clear plate technique.

In daily practice, for more than 2 years at Methodist Hospital of Brooklyn, this simple technique has proven economical, informative, and accurate.

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