



FIGURE 2
Bone scintigram demonstrating a fusiform focal increase in the upper third of the right humerus consistent with a bony metastasis, and corresponding to a permeative bone lesion on plain radiography.

of cases reviewed, and it was emphasized that recognition of the sign was important to prevent bone scan misinterpretation. In the present case, attributing the initial scan appearance to the "delta sign" may have caused incorrect staging of the breast tumor, as the focal uptake of tracer could have been the earliest manifestation of a bony metastasis. We would therefore advise caution in describing a solitary focal lesion as a normal variant in patients with proven malignancy, especially where the primary tumor has a predilection for bony spread.

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Failure of Iodine-131 MIBG Imaging in Small Cell Lung Carcinoma

Iodine-131-labeled MIBG metaiodobenzylguanidine (^{131}I MIBG), an analog of nor-adrenalin, has been successfully

employed as an imaging agent for the adrenal medulla (1) and its neoplasms including neuroblastoma and pheochromocytoma (2,3). It also localizes in some other APUD tumors including paraganglioma (4), thyroid medullary carcinoma (5), and carcinoid tumors (6).

Small cell lung cancer (SCLC) has some similar APUD properties including neurosecretory ("dense core") granules and the enzymes dopa-decarboxylase and neurone-specific enolase (7). We have therefore evaluated ^{131}I MIBG as a diagnostic imaging and potential therapeutic agent in this tumor, with negative results.

Between August and October 1986, ten SCLC patients (age 48–69 yr; eight untreated, two relapsed; four limited disease, six extensive—liver, node, brain, skin, and adrenal metastases) underwent ^{131}I MIBG imaging, using a gamma camera. Each patient was given a 0.5 mCi dose of ^{131}I MIBG, with Lugol's iodine before and after to prevent thyroid uptake. Planar, anterior, and posterior images of the chest were obtained 24 and 48 hr following i.v. injection of the radiopharmaceutical using a data acquisition time of 20 min. In patients with known disease in other areas, such as the liver, additional selected anterior and posterior planar views were obtained.

Physiological activity was seen in the liver, spleen, urinary bladder, heart and to a lesser extent in the lung fields, but no tumor concentration of the radiopharmaceutical was seen in any patient. Unlike other tumors with similar APUD characteristics, ^{131}I MIBG does not appear to be taken up selectively by small cell lung carcinoma using current imaging techniques.

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Thallium-201 Imaging of Auto-Transplanted Parathyroid Glands

TO THE EDITOR: We wish to offer a short addendum to an otherwise comprehensive yet succinct review of noninva-