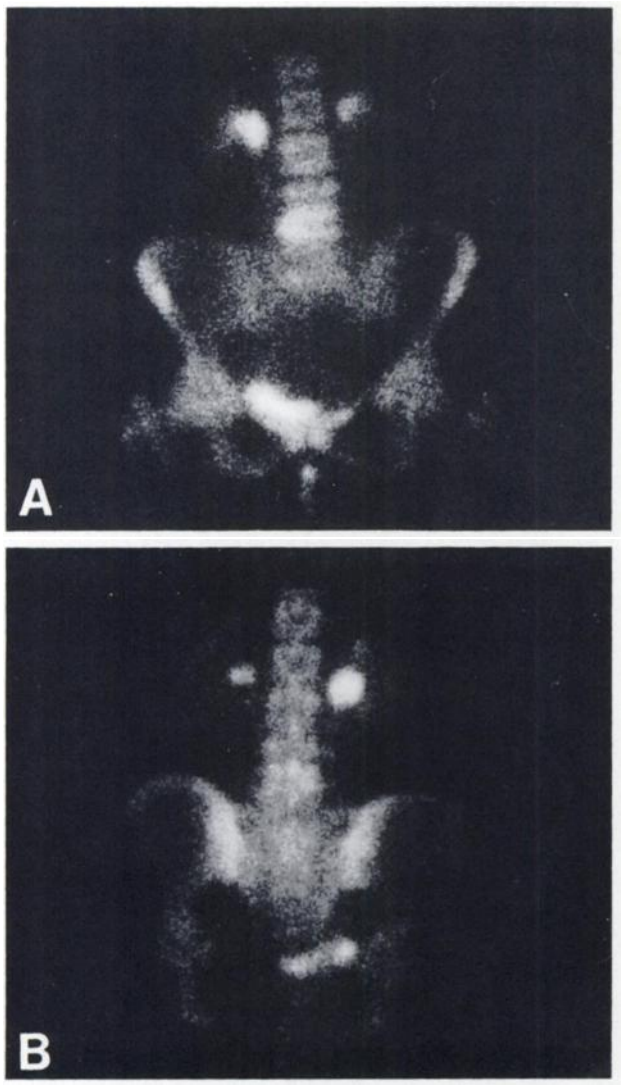

FIGURE 1
A: Anterior view. Note the "sandwich" pattern: uptake by the vertebral plates and lack of accumulation due to the intervertebral disk. B: Posterior view. Note the slight nonspecific uptake by L4 vertebra.

ages, frequently showing two linear uptakes (vertebral plates) separated by a linear cold area (intervertebral disk) (*4*); in this case, a "sandwich" pattern is observed. When the uptake is asymetric, the image facilitates the choice of the side of the puncture.

The anterior view is mainly of interest for lumbar osteomyelitis; at this level, due to lumbar hyperlordosis, the vertebral bodies are relatively close to the gamma camera in the anterior view; contours are well visualized, without superimposition of the posterior vertebral structures. On the other hand, for studies of the kyphotic dorsal column which is distal to the anterior wall and where superimposition of the sternum is present, the anterior view is less useful. In fact, multiple views of the area of interest should always be performed.

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Indium-111 Chloride Imaging of Infected Prostheses

TO THE EDITOR: The recent article by Sayle et al., "Indium-111 Chloride Imaging in the Detection of Infected Prosthesis" (*1*), suggests that soluble, perhaps transferrin-bound indium, is localized in sites of inflammation. However, an alternative explanation is suggested by our published work (*2*). In this publication, increased radionuclide uptake of technetium-99m sulfur colloid was described in osteomyelitis occurring in regions of white, i.e., nonhemopoetic bone marrow. Since indium-111 chloride is well described to (at least partially) form a colloid in vivo and localize to the reticuloendothelial system (*3*), a similar colloid-dependent infection localization mechanism may apply to this radiopharmaceutical.

Our clinical results showed a similar sensitivity (89.5%, 17 out of 19 patients) to Sayle et al., and a higher specificity (92.3%, 12 out of 13 patients) possibly because areas containing red bone marrow were excluded from our study.

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Problem with Mouse Neuroblastoma for Iodine-131 MIBG Studies

TO THE EDITOR: The Letter to the Editor by Spencer et

al. (*1*) presents useful data and an example of the uptake of two agents in mouse adrenal tissue, but not in the mouse neuroblastoma. The two compounds, iodine-131 metaiodobenzylguanidine (MIBG) and iodine-131 N,N-dipropyl-4 iodophenyl N-methyl ammonium iodide (DIM) are structurally distinct.

The reasons for the heterogeneity of uptake of radioiodinated agents in different tissues, i.e., mouse and human neuroblastoma, might be related to the following.

1. Despite the fact that both compounds enter the mouse adrenal, there is no assurance that the mechanisms are the same. While MIBG is a guanidine derivative, DIM is a quaternary ammonium salt with a pKa that is likely lower. In addition, compounds with the guanidine group in their structure exert a variety of physiological or pharmacological effects (*2,3*). Hence, one could conceive of different pathways of entry or binding for MIBG as contrasted with DIM. These differences could be enhanced in neuroblastomas as contrasted with the normal adrenal.

2. The authors suggested that there must be biochemical differences between the mouse and human neuroblastoma, which should be studied carefully to clarify the reason for the difference in the uptake of MIBG between the two species.

Finally, the report presented by Spencer et al. (*1*) should be taken into consideration in future evaluation of radiopharmaceuticals in several animal models and not to conclude results on data generated from using one model only.

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