Letters to the Editor

Pentavalent technetium-99m dimercaptosuccinic acid scintigraphy is useful in diagnosis and localization of neuroblastoma

Sir,

Pentavalent technetium-99m dimercaptosuccinic acid (Tc-99m-V-DMSA) has proved to be useful for localization of medullary carcinoma of thyroid and pheochromocytoma. As neuroblastoma is also believed to arise from neural crest, we explored the usefulness of Tc-99m-V-DMSA scintigraphy in this condition. Forty-two patients with histologically proven tumours were scanned by the method described by Ohta.¹ Scintigrams using a conventional gamma camera were taken 60–120 minutes after intravenous administration of 10 mCi Tc-V-DMSA. The distribution of tumours was; neuroblastoma 17, soft tissue sarcoma 9, non-Hodgkin's lymphoma 6, renal cell carcinoma 2, invasive thymoma 2, and one case each of metastatic germ cell tumour, adrenal cortical tumour, metastatic Wilms' tumour, bronchogenic carcinoma, metastatic adenocarcinoma of stomach to femur, and anaplastic carcinoma of thyroid. All patients had gross clinical disease at the time of the procedure. All 17 patients with neuroblastoma and the patient with anaplastic carcinoma showed avid uptake. In our study the scintigraphy had a sensitivity and specificity approaching 100% and 98%, respectively, for neuroblastoma (Figure 1).

Figure 1 Photograph of a Tc-99m-V-DMSA scan showing avid uptake with central necrosis in a patient with neuroblastoma in lower abdomen.

The usefulness of this scanning in neuroblastoma has not been reported before. As it is one of the more common tumours of childhood, the implications of our observation are significant and manifold. (a) Most importantly, the technique may help in differentiating various malignant round cell tumours. Not uncommonly pathologists on routine histology find it difficult to differentiate neuroblastoma from other malignant round cell tumours such as soft tissue sarcomas and lymphomas. The characteristic light microscopic demonstration of Homer–Wright neural rosettes may not always be possible in neuroblastoma. The electron microscopy, immunocytochemistry and urinary catecholamine estimation may help in the diagnosis in a few more cases. However, a sizable group will be left with a diagnosis of a 'malignant round cell tumour' that cannot be characterized further. Significantly, 14 of our patients who had either lymphoma or soft tissue sarcoma (all malignant round cell tumours) showed negative uptake. (b) The technique could be used to localize and monitor the response to treatment. (c) Tc-99m-V-DMSA scanning is much cheaper, simpler and less time-consuming than ¹³¹I-iodobenzylguanidine scanning that is currently used in neuroblastoma.² (d) Its potential as an adjuvant in the treatment of such a refractory tumour as neuroblastoma could be investigated with the use of a new agent such as rhenium-186 (a technetium analogue) with beta and gamma emission.³

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Nifedipine and thrombocytopenia

Sir,

Thrombocytopenia from nifedipine seems to be a rare event.

A 64 year old woman affected by diabetes mellitus and high blood pressure was hospitalized because of gingivitis and petechiae.

Apart from a platelet count of 20,000/mm³, peripheral blood and coagulation screen were normal. Bone marrow