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CLINICAL SIGNIFICANCE OF TC-99M MDP BONE SCINTIGRAPHY FOR PRIMARY LUNG CANCER.
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In order to detect the bone metastasis, ninety-three cases of primary lung cancer were examined by Tc-99m MDP bone scintigraphy from June 1973 to July 1982. Bone radiography was always performed when abnormal accumulation was found. Rate of diagnostic accuracy of bone scintigraphy, bone radiography and bone scintigraphy combined with bone radiography were 78%, 80% and 86% respectively. Most of metastases were found on ribs. But false positive accumulation, for example bone fracture, bone fusion etc, were also found on them. It was concluded that ill-defined band like accumulation and multiple accumulation on the same rib were most likely to be bone metastasis. On the other hand, well-defined solitary spotty accumulation is apt to be false positive i.e. bone fracture and microfracture or bone fusion etc.

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DETECTION OF SKELETAL INVOLVEMENT BY BONE SCANNING IN MALIGNANT LYMPHOMA.
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The demonstration of skeletal involvement in patients with malignant lymphoma is an important part of staging. Results of 92 patients with malignant lymphoma (13 with Hodgkin's disease and 79 with non-Hodgkin's lymphomas) studied with bone scintiscans are presented.
Osseous involvements are found in 5 (10%) of 50 patients at the time of initial staging, and 12 (13%) of 92 patients during the course. 11 (35.5%) of 30 patients were observed in association with disseminated lymphoma (stage IV). Extremities were most frequently involved followed by ribs, pelvis, spine, and skull. Bone marrow involvement occurred more frequently than bone involvement. Bone scanning is an important diagnostic tool in the initial staging evaluation of patients with malignant lymphoma and is a useful means of following osseous involvement in response to treatment.

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BONE METASTASES FROM GASTRIC CANCER: CLINICAL EVALUATION ON BONE SCINTIGRAM.
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We have studied bone scintigrams in 72 patients with gastric cancer. Of these 72 patients, bone metastases were found in 19 patients (26%). There were no evidence of bone metastases in polypoid lesions, cancers of the antrum, carcinomas in situ, advanced cancers without invasion to serosa, cancer with N_0 regional lymph node metastases, highly deferenciated adenocarcinomas and papillary adenocarcinomas. On the contrary, high rates of bone metastases were seen in cancers of the corpus and cardia, advanced cancers with invasion to neighbouring structures and tubular adenocarcinomas.

Of these 19 patients with bone metastasis, 3 patients showed very similar clinical features and the findings of "diffuse bone metastases on bone scintigrams."

Cancers of the antrum showed high rates of liver metastases, while cancers of the corpus showed high rates of bone metastases.

67 percent of the patients with bone metastases did not have liver metastases and there seemed to be no significant relationship between liver metastases and bone metastases. From these results we suppose that non-portal tract through the vertebral venous plexus instead of portal tract may be the other route of bone metastases from gastric cancer.

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BONE SCANS OF RENAL CELL CARCINOMA WITH BONE METASTASIS.
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We have studied bone scans in 11 cases of renal cell carcinoma revealed by bone metastasis. Of these 11 cases, 9 were interpreted as renal defects on whole bone scanning, 2 were interpreted as normal renal images. These 2 cases suffered small primary lesions. In comparison between bone scans and initial roentgenographic findings, 2 cases showed false negative or cold lesion.