

were positive and in breast cancer 7 out of 9, respectively. The ratio of positive scans in each histologic type of lung and breast cancer cases was as follows; in adenocarcinoma of lung cancer 11/19 (57.9%), in small cell undifferentiated carcinoma 6/12 (50%), in squamous carcinoma 1/8, in large cell carcinoma 1/5, and in scirrhous carcinoma of breast cancer 5/6, carcinoma of other type 2/3.

Total individual positive sites in 35 positive cases accounted 78. Rib, vertebra and pelvis gave a higher percent of positive scans. The 67 sites among these 78 ones were coexamined with X ray, finding that 43 sites out of 67 (64%) was found to be abnormal.

Bone scanning with Tc-99m-EHDP and whole body camera was found to be useful to find bone metastases in lung and breast cancer.

Bone Scintigraphy on Bone Destruction in Head and Neck Cancer

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We have been studied on bone scintigraphy for diagnosing the spread of head and neck cancer. The purpose of this paper is to evaluate the condition of bone destruction in head and neck cancer, comparing X-photos, clinical findings, operations findings and the region of recurrences.

The scintigraphy was taken two or four hours after injection of 2-4 mCi of Sr-87m or 10 mCi of Tc-99m labelled pyrophosphate and diphosphanate using 3 inches rectilinear scanner and scinticamera.

Patients studied in this paper were 37 cases of cancer of paranasal sinus, 8 cases of cancer of nasopharynx, 9 cases of cancer of oral cavity, and 14 cases of miscellaneous malignancy in head and neck.

Increased uptake on the scintigraphy were observed 64 of 68 patients. 37 of 37 patients with cancer of paranasal sinus, 7 of 8 patients with nasopharyngeal cancer, 8 of 9 patients with cancer of oral cavity. The region of increased uptake on the scintigraphy were more extensive than abnormality on X-photos. In patients with cancer of paranasal sinus who were proved invasion of the cancer by operation and follow-up data, we were found a disagreement with pathologic changes of X-photos, abnormal uptake on the scintigraphy and invasion of the cancer. 12 false positive of X-photos, 8 false positive of the scintigraphy, one false negative of X-photos, two false negative of the scintigraphy were observed in 20 patient.