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THREE-PHASE BONE SCINTIGRAPHY IN THE DIAGNOSIS OF SOFT TISSUE TUMORS. S.Matsumoto, N.Kawaguchi, K.Amino, J.Manabe, K.Kaneta. Cancer Institute Hospital, Tokyo.

Thirtyone patients with soft tissue tumors underwent three-phase bone scintigraphy as part of their preoperative staging. Some tumors showed specific uptake pattern according to its internal structure. For example, MFH showed high uptake in blood-pool imaging and bone scan imaging. Myxoid liposarcoma showed faint uptake in blood-pool imaging but high uptake in bone scan imaging. Alveolar soft part sarcoma showed high uptake in blood-pool imaging but cold uptake in bone scan imaging. And the tumors with cystic or necrotic area showed cold uptake corresponding to such area. From these results three-phase bone scan can be said to be useful in the diagnosis of soft tissue tumors.

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BONE SCINTIGRAPHY IN BREAST CARCINOMA. E.Tsukamoto, H.Kawamura, K.Ito, K.Nakada, K.Fujimori and M.Furudate. Hokkaido University School of Medicine, Sapporo.

One thousand thirty-two studies of bone scintigraphy were performed in 469 patients with breast carcinoma. Skeletal metastasis were detected in 20.9% of patients. Sites of skeletal metastasis were widely distributed. Age and pathology had nothing to do with skeletal metastasis. Though most of the skeletal metastasis were found in 3 years after mastectomy, in 25% of the patients it was found more than 3 years later. Rate of patients with skeletal metastasis were significantly increased when clinical stage were more than III, T was more than 3, or N was more than 2. The median survival from the diagnosis of skeletal metastasis were 28 month overall. It was 40 month in the group with skeletal metastasis only, and 10 month in the group with extraskeletal metastasis. Actual survival was significantly good in the group with skeletal metastasis only as compared with the group with extraskeletal metastasis.

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CLINICAL CHARACTERISTICS OF THE PATIENTS WITH BONE METASTASIS ARISING OVER 5 YEARS AFTER RADICAL MASTECTOMY. Y.Ono, H.Igari, T.Ise, Y.Nakamura, K.Yuzuta, T.Tanaka and K.Matsui. Kanagawa Cancer Center and Yokohama City University, Yokohama.

823 consecutive patients who had Tc-99m-MDP bone scans for cancer of the breast between 1982 and 1986 were studied to clear clinical characteristics of the patients with delayed arising (over 5 years after operation) bone metastasis. 22 of 93 patients with bone metastasis had delayed arising bone metastasis (delayed-BM). Mean age at operation in a group of delayed-BM is 5 years younger than in a group of no bone metastasis (no-BM). A close correlation was observed between initial TNM staging, grade of nodal metastasis, postoperative tnm staging and early-BM (arising within 5 years after operation). Contrary there was no different ratio of initial TNM staging, grade of nodal metastasis and tnm staging in patient with delayed-BM to no-BM.

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AN ANALYSIS ON THE OCCURRENCE TIME OF BONE METASTASIS IN THE PATIENTS WITH POST-OPERATIVE BREAST CANCER. T.Togawa, N.Yui, F.Kinoshita, M.Koakutsu and Y.Akiyama, Chiba Cancer Center Hospital, Chiba.

Forty-nine patients with postoperative breast cancer, aged from 25 to 75 yrs (mean 46 yrs), who were definitively diagnosed as having bone metastasis either by serial bone scintigraphy performed before and after surgery or by plain roentgenogram were retrospectively evaluated to clarify when bone metastasis was detected after surgery. Cumulation of 42 patients except 7 stage IV patients according to occurrence time of their bone metastases revealed that 19(45.2%) developed bone metastasis within 2 years after surgery, and 33(78.6%) within 5 years, while 9(21.4%) 5 years and after surgery. Also, we originated prognostic score based on histological subtype, n-factor and f-factor in 22 patients whose clinical stage and above 3 histological factors were definitive. The ratio of 22 patients with stage I&II to stage III was 13 to 9, while score 5&6 to score 7&8 ratio was 6 to 16. Therefore, about 70 percent of patients with bone metastasis in this study was classified into score 7 or 8. Also, 12 (75.0%) of 16 patients with score 7 or 8 were detected their bone metastases within the period predicted to develop bone metastasis.