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BONE SCINTIGRAPHY IN BENIGN BONE TUMOR. Y.Ono, E.Ohtake, A.Nakamori, T.Suzuki, K.Matsui, N.Sakai, M.Watanabe and T.Koshino.Yokohama City University, Yokohama.

Scintigraphic patterns of benign bone tumors were reviewed. Between 1975 and 1983, whole body and local bone scans were undertaken using Tc-99m phosphorous compounds in 83 patients with benign bone tumors or tumorous conditions. Number of cases and histopathological or clinical diagnosis were as follows; osteochondroma 1, exostosis and enchondroma 3, benign chondroblastoma 2, osteoma 3, osteoid osteoma 4, non-ossifying fibroma 5, desmoplastic fibroma 1, hemangioma 5, giant cell tumor 13, solitary bone cyst 14, aneurysmal bone cyst 3, fibrous dysplasia 13, histiocytosis-X 7 and fibrous cortical defect 9. Out of 67 patients with abnormal scintigraphic results, 19 had pathologically high uptake patterns and two showed cold area in bone lesions. "cold in hot" or "doughnuts" sign were obserbed in the patients with giant cell tumor, aneurysmal bone cyst, hemoangioma and solitary bone cyst. Radiographic and scintigraphic images of 7 cases were presented.

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EVALUATION OF STATIC AND DYNAMIC SCINTIGRA-PHY WITH TC-99m-MDP FOR BONE AND SOFT TIS-SUE DISEASE.

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We studied whether a static and dynamic scintigraphy with Tc-99m-MDP was effective to diagnosis of benign and malignant diseases of bone and soft tissue. Tc-99m-MDP was injected into vein with the bolus method. From direct after injection to 5 minutes, sequential images of 100 flames every 3 seconds were collected and static image after 10 minutes, 20 minutes and 3 hours were also prepared. And a time activity curve was delineated from ROI designed on the focal lesion. 35 cases of prepared cases were as follow, primary malignant bone tumor 4 cases, metastatic bone tumor 5 cases, benign bone tumor 6 cases, tumorous conditions of bone 5 cases, inflamation of bone 6 cases, malignant soft tissue tumor 5 cases, benign soft tissue tumor 1 case, inflamation of soft tissue 3 cases. Dynamic scintigraphy showed a vascular situation in the site of the focal lesion in bone and soft tissue disease and time activity curve was effective to quantitative study of these diseases.

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