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DIAGNOSIS OF BONE TUMOR BY BONE SCINTIGRAPHIC MORPHOLOGY. H.Nakashima, Y.Aoki, T.Kyo, N.Yasui, H.Hamada, Y.Akai, Y.Nakamura, E.Omori, Y.Kusumi, K.Kimura. Osaka University Medical School. Osaka.

One hundred forty five bone scintigrams of patients with bone tumor were revised in the points of morphology and intensity. Scintigraphic morphology was classified as follows. Ia; intense accumulation is seen at the central region in the lesion which is recognized in radiography. Ib; spotty intense accumulation is seen in the radiographic lesion. Ic; uniform accumulation is seen diffusely in the radiographic lesion. Id; chiefly at the margin of the lesion is seen bone seeking agent accumulation. II; no abnormal scintigraphic findings can be seen, the accumulation on the tumor region being equal to that of normal bone. III; defect of accumulation is seen at the radiographic region. Scintigraphic intensity classified based on those at normal bone and sacro-iliac joint. Following diseases fell in each morphology in the high percentage. Ia; osteoidosteoma. Ib; osteosarcoma. Ic; benign tumor. Ic; malignant tumor. II and III; solitary bone cyst. In the scintigraphic intensity study, we could not find significant differences between diseases, except that solitary bone cyst and fibrous cortical defect showed low density.

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BONE SCINTIGRAPHY OF FIBROUS DYSPLASIA. T.Okuyama, H.Suzuki, Y.Kuwabara, K.Nakamoto, H.Fujii and S.Suzuki. Tokyo Medical and Dental University, School of Medicine. Tokyo.

Fibrous dysplasia is one of the common tumorous conditions of bones, which occupies 7.3% in incidence among the primary bone tumors and tumorous conditions according to the Bone Tumor Registry in Japan. Over 50% of patients are less than twenty years of age when the diagnosis is established, although the lesions are occasionally "silent" in nature. Among a consecutive series of 100 cases carried out bone scintigraphy on benign bone tumors, we have 14 cases of fibrous dysplasia (9 monostotic and 5 polyostotic). In the present study, clinical features of the 14 cases are discussed with a special emphasis on diagnostic value of their scintigraphic manifestations.

Bone scintigrams in all lesions of the 14 cases, regardless of monostotic or polyostotic, revealed smoothly outlined areas of markedly increased radioactive accumulation. The scintigraphy was extremely useful to detect the distribution and extension of polyostotic lesions and silent lesions especially in ribs as well as maxillofacial regions. The scintigraphic features were also useful in differential diagnosis of fibrous dysplasia from other radiolucent bone lesions in young patients, such as bone cyst, eosinophilic granuloma, non-ossifying fibroma and ostitis fibrosa cystica.