Bone Scintigraphy with Tc-99m MDP was performed in 23 patients with idiopathic femoral head necrosis. The patients were separated into three groups with following roentgenographic criteria: group A (6 cases) no definite abnormality, group B (9 cases) definite radiolucent and patchy sclerosis in the femoral, group C (8 cases) destruction and deformity of the femoral head. Abnormality in the acetabulum. Scintigraphic abnormality was found in all patients with bilateral involvement in nine. Bone scintigraphy with Tc-99m MDP was helpful in diagnosis of idiopathic femoral head necrosis in early stage when roentgenogram usually showed no definite abnormality. CT was useful in spatial observation of abnormalities the joint space and femoral head.

We report seventy cases of extraosseous uptake of Tc-99m phosphate complexes with the exception of myocardial, brain and renal uptakes, from 4058 bone scans out of 3000 cases. These 25 cases of malignant neoplasms with one exception of benign tumor of the uterine, and 45 of non-neoplastic conditions such as amyloid deposits. In spite of no calcification was observed among several cases, fine calcifications were detected in histological examination. We suspected that the mechanism for extraosseous accumulation of the tracers is related to the calcium in the damaged cells and calcifications.