

gave negative joint and positive bone scans. A study of scans in relation to X-ray findings showed that 29 joints (12.0%) gave a negative X-ray finding in association with a positive joint scan, while 17 other joints (7.9%) did the same in conjunction with a positive bone scan; a positivity of X-ray finding was associated with a negative joint scan in 35 joints (14.5%) and with a negative bone scan in 41 (17.0%).

From these results the following conclusions might be drawn: (1) scintigraphy can detect a

lesion in those stages during which there are no appreciable changes noted on X-ray; (2) joint scan was positive in a higher percentage of cases than bone scan in those stages during which X-ray failed to demonstrate any distinct changes; (3) X-ray evidence of bone destruction does not necessarily implicate an active disease process in the affected locality unless abnormal RI accumulation is demonstrated on scan; (4) this series, when taken as a whole, exhibited a reasonably high percentage of positivity of bone scan.

Application of Bone Scintigraphy to Heterotopic Ossification

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Bone scintigraphy is one of the useful examinations for early diagnosis, analysis and therapy of heterotopic ossification. We applied to 3 cases of heterotopic ossification, which were myositis ossificans circumscripta, CO poisoning and encephalitis, with ^{99m}Tc -pyrophosphate or ^{99m}Tc -diphosphate. Then we analyzed clinical symptoms, X-ray findings, treatment and pathological findings. Ossification was found in each case in left knee, bilateral hip joints and right elbow joint, and increased uptake on scintigraphy.

In myositis ossificans and CO poisoning, ossified tissues were resected after uptake and activity of ossification decreased. The case of right hemiparesis due to encephalitis showed contracture of right elbow joint and ulnar nerve palsy, so translocation of this nerve was made before uptake diminished. But accumulation in this case was normalized gradually. We reported the significances of bone scintigraphy to 3 cases of heterotopic ossification, and analyzed clinical findings, X-ray findings and pathological findings.

Paralysis of Extremity and Bone Scintigram

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Scintigrams of entire bone were obtained by ^{99m}Tc -Phosphate. Patient limbs were paralysed motorically owing to cerebrospinal disease.

Accumulation of the isotope was elevated in diseased side compared with healthy side.

Osteoporotic findings on X-ray film were correlated to some extent to scintigraphic findings. Accumulation of the isotope seemed to increase in relation to the grade of paralysis. The isotopic findings seemed to reveal earlier X-P findings.