

Accumulation of ^{99m}Tc -HM-PAO in photon deficient areas in bone scan of bone metastasis from hepatocellular carcinoma

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To evaluate bone metastasis from hepatocellular carcinoma (HCC), both bone and ^{99m}Tc -HM-PAO scintigraphies were performed in six patients with clinically and pathologically confirmed HCC. Two patients had a bone scintigram which revealed abnormal accumulation in the skull base, pelvic bone and thoracic spine. The ^{99m}Tc -HM-PAO scans of both these patients also showed abnormal accumulation in the same sites. The bone scintigrams in one patient revealed not only abnormal accumulation in the ribs but also photon deficient areas in the sternum, thoracic spine and femur, while ^{99m}Tc -HM-PAO scans showed abnormal accumulation in all these sites. In three patients, bone scintigraphy revealed photon deficient areas in the ribs, pelvic bone and femur, and their ^{99m}Tc -HM-PAO scintigrams showed abnormal accumulation in the same sites. Thus, it was shown that, in the detection of bone metastasis from HCC by means of bone scintigraphy, it was necessary to pay attention to hot and cold lesions, and that a combination study with ^{99m}Tc -phosphorous compounds and ^{99m}Tc -HM-PAO was useful in evaluating these lesions.

Key words: hepatocellular carcinoma, bone metastasis, bone scintigraphy, ^{99m}Tc -HM-PAO scintigraphy