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Diaphyseal medullary stenosis with pleomorphic malignant fibrous histiocytoma of the bone: ^{99m}Tc hydroxymethylenediphosphonate and ^{201}Tl chloride scintigraphy findings

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Diaphyseal medullary stenosis (DMS) is an extremely rare hereditary bone dysplasia, which was first described by Arnold in 1973. DMS has a high incidence of pleomorphic malignant fibrous histiocytoma (MFH). In this paper, we report the imaging findings of DMS with pleomorphic MFH of the bone, mainly describing ^{99m}Tc hydroxymethylenediphosphonate (HMDP) and thallium-201 (^{201}Tl) chloride scintigraphy findings. On ^{99m}Tc HMDP scintigraphy, focal increased uptake area of the right femur corresponded to the area of bone marrow invasion of the tumor and bone infarction. The mechanism of the uptake of ^{99m}Tc HMDP to the extraosseous lesion was not clear. On ^{201}Tl chloride scintigraphy, the increased uptake of the periphery of the mass seemed to reflect the aggressiveness of invasion and the cellularity.

Key words: diaphyseal medullary stenosis, malignant fibrous histiocytoma, ^{99m}Tc HMDP, ^{201}Tl chloride