

CASE REPORT

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**Increased bone marrow uptake on Tc-99m DMSA scintigraphy
in a patient with renal osteodystrophy**

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A 16-year-old male patient was evaluated with Tc-99m Diethylenetriamine-pentaacetic acid (DTPA) and Tc-99m 2-3 Dimercaptosuccinic acid (DMSA) scintigraphy for renal failure secondary to renal calculi. The uptake in the renal cortex was significantly decreased both on DMSA and DTPA studies. Uptake calculation on DMSA scintigraphy in the kidneys disclosed values of less than 5%. The activity in the liver and bone was significantly increased. A bone scan performed with Tc-99m methylene diphosphonate (MDP) revealed increased bone uptake with decreased soft tissue activity. Findings on bone scan were compatible with super scan, most likely due to renal osteodystrophy. This case illustrates the altered biodistribution of Tc-99m DMSA and a shift of the radiopharmaceutical to the bone marrow which is mot likely related to colloid formation due to changes in mineral balance in patients with renal failure.

Key words: Radionuclide imaging, Renal osteodystrophy, Renal scintigraphy