

Reduced Tc-99m DMSA uptake in a patient with renal tubular acidosis: Effect of acid-base imbalance

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Tc-99m dimercaptosuccinic acid (DMSA) is used as a renal cortical imaging agent to detect parenchymal abnormalities especially in children. Kidney uptake of DMSA provides an index for evaluation of a functional tubular mass, which depends on the renal blood flow and proximal tubular cell membrane transport function. We here report a boy with renal tubular acidosis, which has noticeably reduced uptake on his Tc-99m DMSA scintigraphy, despite a totally normal Tc-99m MAG-3 study. The case reported here clearly demonstrates a situation in which renal uptake of DMSA may be dissociated from a functional renal mass and the importance of acid-base balance which alters Tc-99m DMSA uptake.

Key words: renal tubular acidosis, Tc-99m DMSA, Tc-99m MAG-3