



Room: Foyer F

TP71 Extra Renal uptake of ^{99m}Tc -DTPA in a patient with Neurofibromatosis type 1

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Introduction: ^{99m}Tc -diethylene-triamine-pentaacetic acid (^{99m}Tc -DTPA) was introduced as a renal imaging agent in 1970. It is indicated in the study of the renal function, particularly in the assessment of the glomerular filtration rate (GFR). Because only a small fraction is protein bound (less than 5%), ^{99m}Tc -DTPA penetrates the capillary wall and enters the extracellular fluid after intravenous injection. Neurofibromatosis type 1 (NF1 or Von Recklinghausen disease) is an autosomal dominant inherited disease with variable genetic expression. This pathology classically manifests as neuroectodermal and mesodermal abnormalities of the skin, nervous system, bones, and soft tissues. The signs and symptoms vary widely among affected people but almost all people have multiple café-au-lait spots. Most adults with NF1 develop neurofibromas, which are benign tumors that are usually located on or just under the skin. **Aim:** To describe this occasional finding of extra renal accumulation of ^{99m}Tc -DTPA in a neurofibroma of a patient with Neurofibromatosis type 1, during a routine study for the assessment of glomerular renal function. **Material & Methods:** In this case, a Caucasian female patient with 42 years old, came to our department to perform a renal scintigraphy with ^{99m}Tc -DTPA in order to study the renal function and to establish a possible obstructive uropathy, after several episodes of renal colic. Her personal history includes NF1 with neurofibromas and multiple café au lait spots; neurogenic bladder (chronic catheterization) and epilepsy. Following a correct hydration and with the patient positioned supine in the gamma camera, we performed a routine renal scintigraphy in posterior projection, after an intravenous bolus injection with 3 mCi of ^{99m}Tc -DTPA. We observed an extra renal uptake of ^{99m}Tc -DTPA in the left side of the abdomen since the first minute of the study, which remained throughout the study and after 45 minutes. Our patient had a neurofibroma in that location which reappeared after excision in 1998. **Conclusion:** Usually, there is no significant uptake or retention of ^{99m}Tc -DTPA in any other organ of the body besides the urinary tract or the central nervous system. However, this rare situation was observed in the soft tissue lesions of many patients with NF1.