

Scintigraphic demonstration of renal cell carcinoma with I-131-6 β -iodomethyl-19-norcholesterol: A case report

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Extraadrenal abnormal uptake on adrenocortical scintigraphy has been reported rarely in the normal gallbladder, lipid cell tumor of the ovary, or in clear cell type renal cell carcinoma. Clear cell type renal cell carcinoma contains glycogen and cholesterol like the adrenal gland, but the uptake of the radionuclide I-131 cholesterol has been reported to be low and not sufficient to image it. Right renal and adrenal masses were incidentally discovered on abdominal CT scan in a patient with chronic renal failure resulting in bilateral acquired cystic kidney disease. Adrenocortical scintigraphy done to know the nature of the adrenal mass showed high uptake corresponding to the right renal mass and the right adrenal mass. Clear cell type renal cell carcinoma and adrenal adenoma with prominent clear cells were histologically confirmed on hematoxylin-eosin stain and in an immunohistochemical study with renal cell antibody. Not only low-density lipoprotein receptors mediated uptake but also overall replacement of the right non-tumorous renal parenchyma by acquired cysts may have played a role in imaging the renal cell carcinoma on adrenocortical scintigraphy.

Key words: adrenocortical scintigraphy, renal cell carcinoma, adrenal adenoma