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Juxtaglomerular Cell Tumor

- It is a very rare benign renin-secreting tumor of the kidney, and it can be an unusual cause of secondary hypertension. This tumor is typically found in young adults (with a peak incidence in the second and third decades), and it is reported in children only occasionally. The patients usually present with hypertension, hyperaldosteronism, and hypokalemia, secondary to tumor renin secretion. An occasional incidentally discovered reninoma is nonfunctioning.
- CT: Most juxtaglomerular cell tumors are visible on CT imaging. On unenhanced CT, it usually appears as a unilateral well-circumscribed hypoattenuating cortical mass; most lesions are smaller than 2–3 cm in diameter. At multiphase CT, the tumors are not enhanced in the arterial phase despite the profuse vascularity, possibly because of renin-induced vasoconstriction. The tumors show moderate enhancement during the delayed phase.
- MRI is a powerful diagnostic procedure. At MRI, JCT may appear as a cortical renal mass of variable signal intensity; it appears as an iso-signal intensity cortical lesion on

V. Panebianco, J.J. Fütterer, *MDCT and MRI in Genitourinary Imaging*, A-Z Notes in Radiological Practice and Reporting,
DOI 10.1007/978-88-470-5705-0_10, © Springer-Verlag Italia 2015

T1-weighted images and a high-signal-intensity lesion on T2-weighted images. It shows a delayed peripheral enhancement on dynamic contrast-enhanced MRI.

Suggested Reading

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