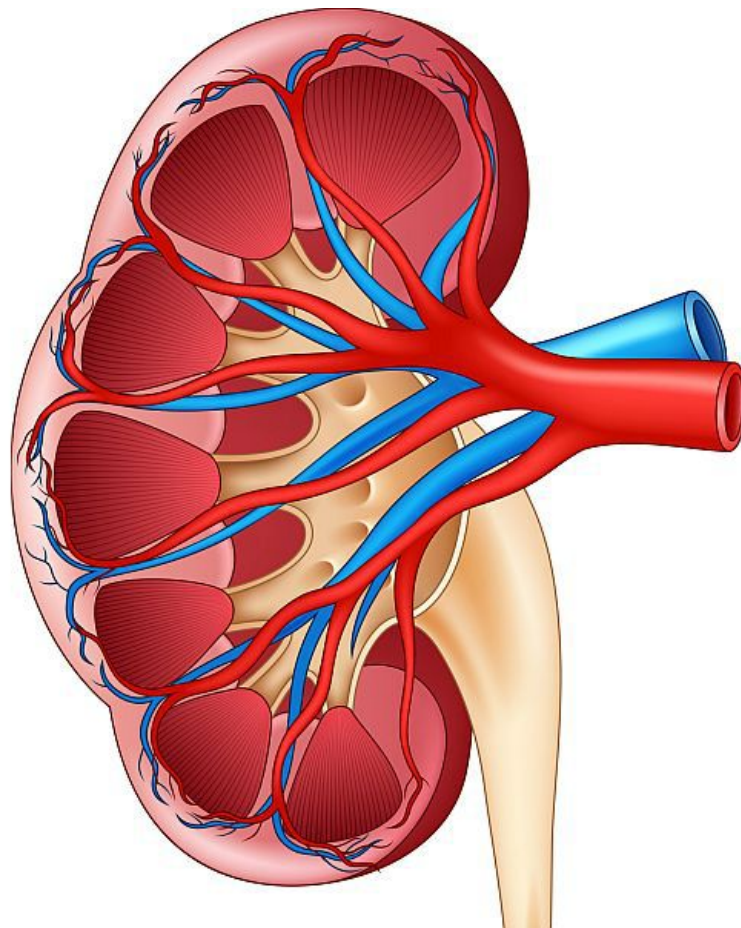


Percutaneous needle-based OCT differentiates renal masses

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(HealthDay)—Percutaneous needle-based optical coherence tomography

(OCT) can differentiate renal masses, according to a study published in the May issue of *The Journal of Urology*.

Peter G.K. Wagstaff, from AMC University Hospital in the Netherlands, and colleagues performed percutaneous needle-based OCT of the kidney in patients presenting with a solid renal mass. They obtained pathology specimens as biopsies and/or resection specimens. In order to derive the attenuation coefficient (μ_{OCT}) values of oncocytoma and renal cell carcinoma, they correlated [optical coherence tomography](#) results of 40 patients to pathology results of the resected specimens.

The researchers found that the median μ_{OCT} was significantly lower for oncocytoma versus renal cell carcinoma. In receiver operating curve (ROC) analysis, a μ_{OCT} cutoff value of 3.8 mm^{-1} could differentiate between oncocytoma and renal cell carcinoma with sensitivity, specificity, positive predictive value, and negative predictive value of 86, 75, 97, and 37 percent, respectively; 0.81 was the area under the ROC. The median μ_{OCT} was significantly lower for oncocytoma versus clear cell renal cell carcinoma and papillary renal cell carcinoma ($P = 0.049$ and 0.027 , respectively).

"We demonstrated that the μ_{OCT} is significantly higher in [renal cell carcinoma](#) versus oncocytoma, with ROC analysis showing promising results for their differentiation," the authors write.

More information: [Abstract](#)
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