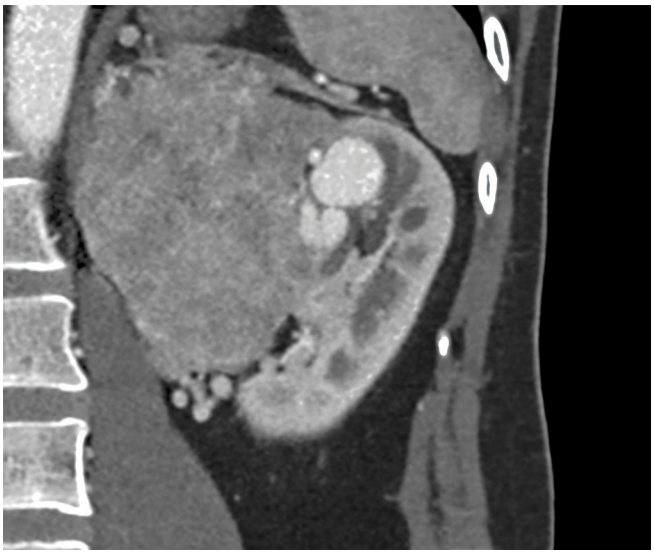
Renal Cell Carcinoma With Intratumoral Pseudoaneurysm

Daniel P. Pierce,[✉1] Elias H. Salloum,[2] Philippe E. Spiess[2]

[1] University of South Florida Department of Urology, Tampa, United States [2] Moffitt Cancer Center, Tampa, United States

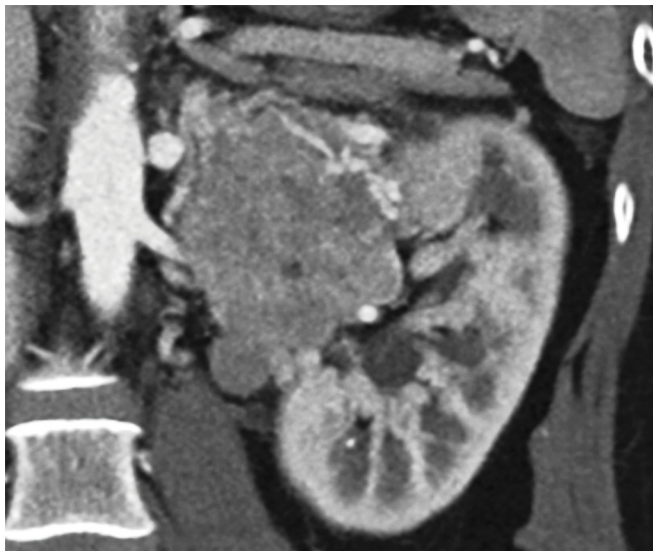
Pseudoaneurysms can be present both pre- and postoperatively, occurring as frequently as 23% of the time by postoperative day seven. This specific case was found secondary to a standard preoperative evaluation and workup in a patient with otherwise undisturbed surgical fields suggesting de novo formation within the renal tumor. Factors considered for preoperative intervention included size of overall tumor, size of pseudoaneurysm, complex surgical anatomy of renal vasculature, and baseline risk of major intraoperative or postoperative hemorrhage. Renal artery embolization was performed using multiple detachable Concerto microcoils, resulting in complete occlusion. The following day via a subcostal incision the left upper pole and main renal arteries and vein were controlled, allowing for safe removal of the left kidney and adrenal gland with minimal measured blood loss at 300 mL and an uneventful postoperative course.

FIGURE 1.



Coronal CT demonstrating a 10.3 cm × 8.7 cm × 6.5 cm solid and cystic enhancing left renal mass arising from the medial aspect of the upper pole, engulfing the left adrenal gland, and invading the left renal hilum. Also captured within this image are 2 of 3 pseudoaneurysms (PSA) with the largest measuring approximately 3 cm and an inferior multilobulated PSA measuring 1.5 cm

FIGURE 2.



Coronal CT depicting yet another PSA at the origin of a more superior of 2 renal arteries measuring just under 1 cm

Key Words

Renal cell carcinoma, pseudoaneurysm, renal artery embolization

Competing Interests

None declared.

Patient consent: obtained.

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FIGURE 3.

Digital subtraction angiogram of the superior left renal artery confirming a total of 3 PSA, the more proximal originating at the renal artery orifice

FIGURE 4.

Post embolization angiogram demonstrating stasis of the renal artery without opacification of the 3 cm PSA. Also noted is retained contrast within the inferior multilobulated PSA confirming occlusion of the feeding vessel