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Polypoid endometriosis presenting as a renal cortical tumor

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Abstract

A 41-year-old female presented with left-sided flank pain and gross hematuria temporally unrelated to her menstrual cycle. Abdominal computed tomography scan showed a large left-sided solid, enhancing kidney mass radiographically consistent with renal cell carcinoma. Following surgical resection, histopathological examination revealed polypoid endometriosis. Polypoid endometriosis is rare and mimics a neoplasm clinically, radiographically, and on gross examination. Patients with polypoid endometriosis often present with symptoms related to mass effect rather than classic endometriosis hallmark symptoms such as dyspareunia, dysmenorrhea, and cyclic abdominal pain. Treatment includes surgical resection.

Key Words: renal endometriosis; polypoid endometriosis; kidney mass; renal cell carcinoma; computed tomography; images

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A 41-year-old female with no prior gynecologic history or exogenous hormone use and no family history of kidney cancer presented with left flank pain and gross hematuria temporally unrelated to her menstrual cycle. Computed tomography revealed a solid, enhancing left kidney mass measuring 10.6 cm by 8.1 cm by 4.5 cm (Figure 1A-B). Robotic left radical nephrectomy was performed. Histopathological examination revealed polypoid endometriosis (Figure 2A-D). The patient recovered uneventfully and is without disease recurrence 12 months following surgery.

Polypoid endometriosis is a distinct, but rare, variant of endometriosis, which is difficult to distinguish from malignancy. The most commonly affected regions in order of frequency include colon, ovary, uterine serosa, cervical or vaginal mucosa, ureter, fallopian tube, omentum, bladder, paraurethral and paravaginal soft tissue (1, 2). Genitourinary tract involvement has been reported in 1-5% of all cases. Treatment involves surgical resection. Whereas symptoms of classic endometriosis include cyclic abdominal pain, dyspareunia, dysmenorrhea, and infertility, symptoms of polypoid endometriosis may be

secondary to mass effect and include hematuria, bowel obstruction, and urinary frequency or urgency. Despite frequent findings of hyperplastic glands and cytologic atypia, progression of polypoid endometriosis to malignancy associated with endometriosis of the usual type is rare (1-3).

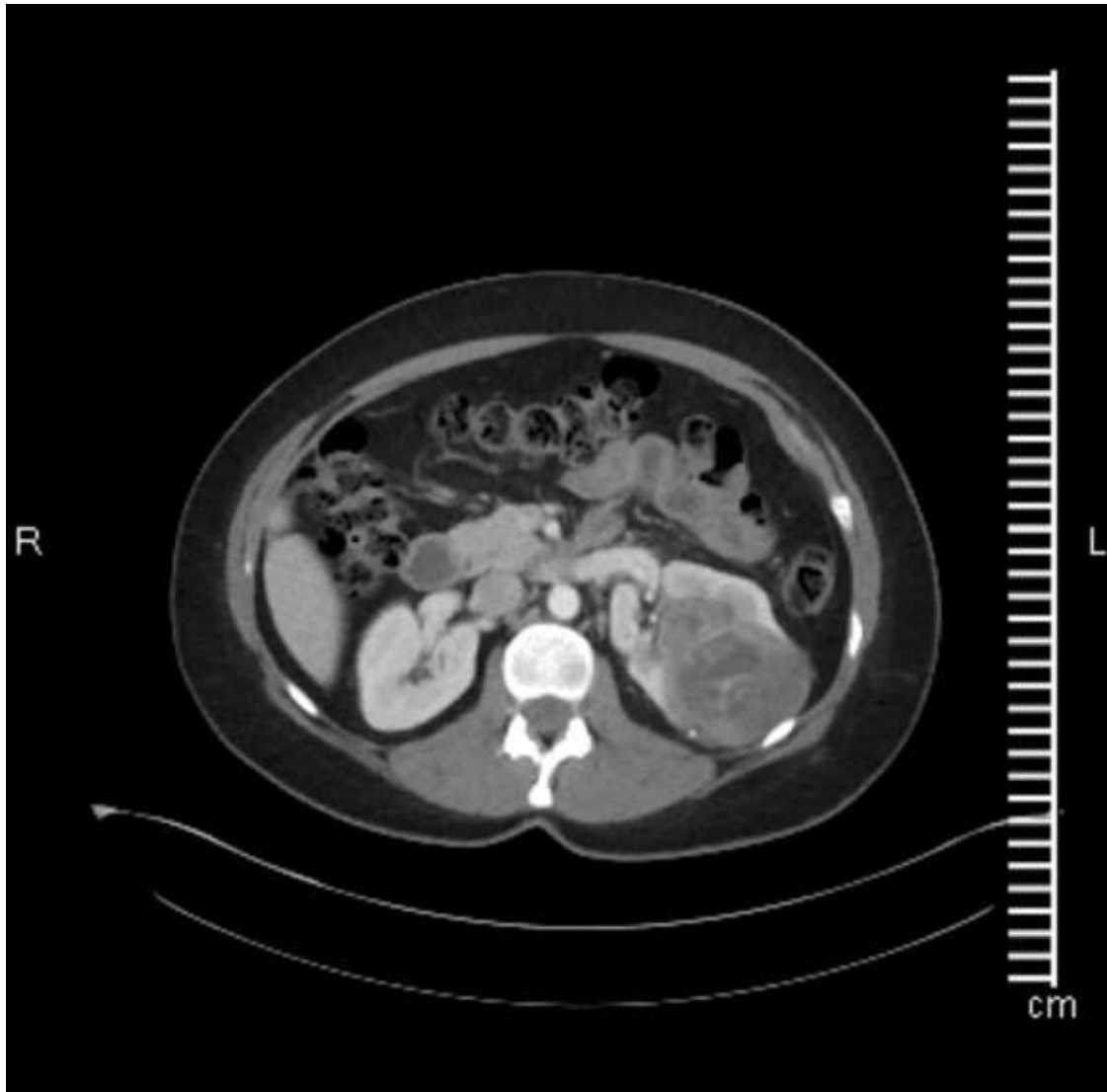
Conflict of Interest

None

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(A)



(B)

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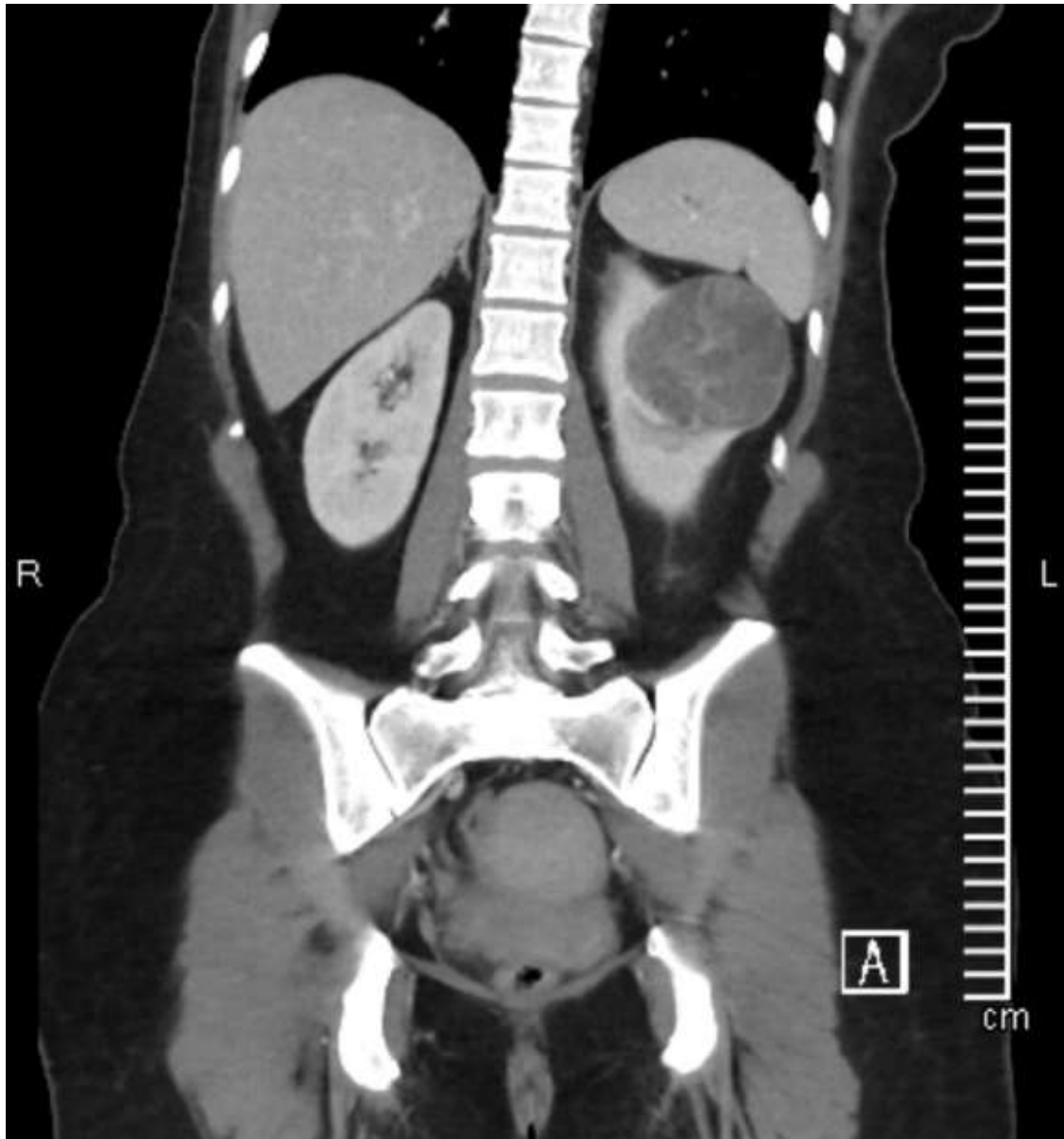


Figure 1: Computed tomography (CT) scan of the abdomen and pelvis in (A) axial and (B) coronal views revealing a left-sided kidney mass radiographically consistent with a renal cortical neoplasm and indistinguishable from renal cell carcinoma. Region of interest (ROI) attenuation value on unenhanced CT was 20.0 HU. After intravenous contrast administration, ROI attenuation value was 48.2 HU.

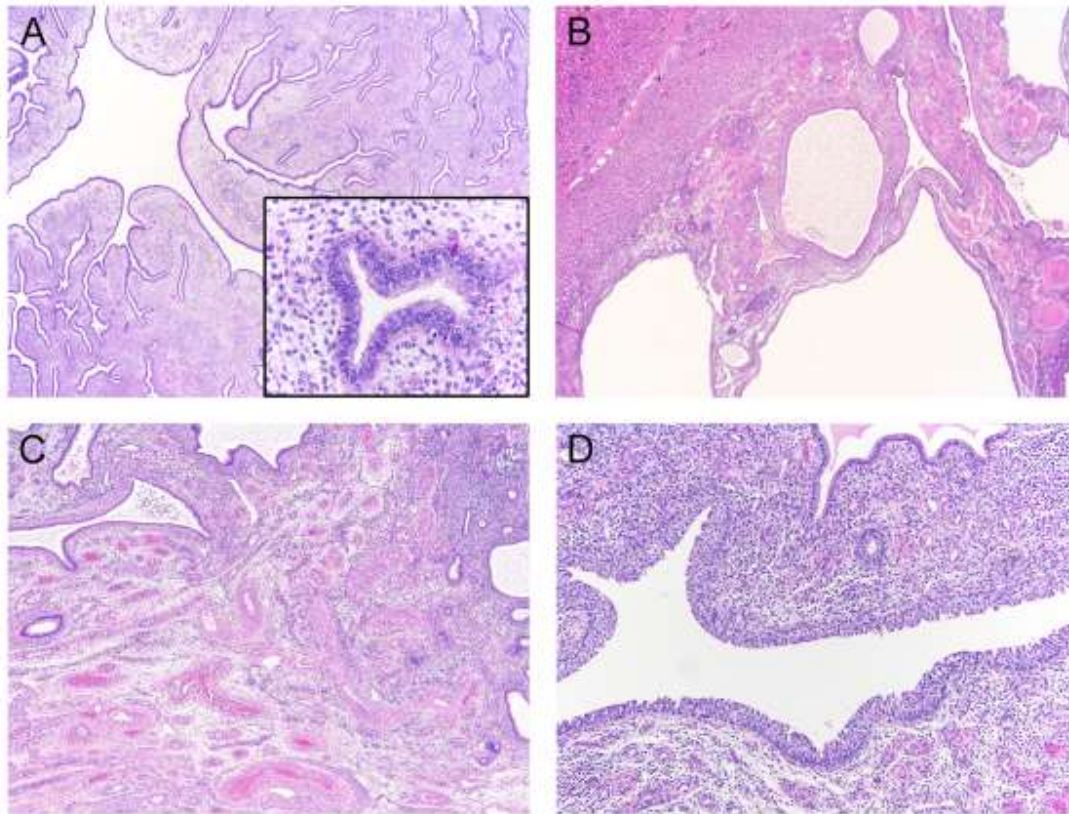


Figure 2: Histopathological examination revealing polypoid endometriosis. (A) Endometrial stroma with polypoid growth and bland glandular structures (H&E, 20X original magnification). These glands are lined by ciliated epithelium (inset, H&E, 400X original magnification). (B) Cystic area adjacent to uninvolved renal parenchyma (H&E, 20X original magnification). (C) Abundant thick walled vessels (H&E, 100X original magnification). (D) Area surrounding urothelium of the renal pelvis (H&E, 200X original magnification).