Renal cell carcinoma with direct colonic invasion

Renal cell carcinoma (RCC) is a fairly uncommon malignancy, comprising only 3% of malignancies in adults [1]. Symptoms related to gastrointestinal involvement of this tumor rarely present, although up to 4% of patients with RCC have small-bowel metastases. Direct colonic invasion by RCC is extremely rare due to the retroperitoneal location of the kidneys and mesocolon. A thorough search of the English medical literature revealed only three reported cases of RCC with direct invasion into the colon [2–4]. Here, we present another case with a brief literature review.

A 53-year-old man presented with intermittent hematochezia and left flank pain. A computed tomographic (CT) scan of the abdomen revealed a 7-cm, left renal mass extending into the descending colon, with suspected fistulous communication (Fig. 1). Colonoscopy revealed significant luminal narrowing in the proximal descending colon with multiple, friable mass lesions (Fig. 2 and Video 1).

Biopsy specimens showed a poorly differentiated carcinoma, lacking both glandular and squamous features. Immunohistochemical analysis revealed tumor cells with marked reactivity for cytokeratin AE1/AE3 and vimentin stains. Scattered S100-positive cells were interspersed among the tumor cells.

Video 1
Endoscopic view of the renal cell carcinoma invading the descending colon.
The patient underwent a left radical nephrectomy and partial colectomy with left-sided transverse colostomy. The surgical specimen contained a mass (11.2 × 10.5 × 5.5 cm) arising in the renal parenchyma, penetrating the renal capsule, and invading the adherent colon (Fig. 3). Histopathologic evaluation revealed a stage pT4 RCC, conventional (clear cell) type with high nuclear grade and extensive sarcomatoid differentiation (85%), and multifocal tumor necrosis (Fig. 4). The surgical resection margins were free of tumor and no lymph node metastasis was identified.

Clear cell carcinoma is the most common (80–90%) subtype of RCC [5]. However, only 5% of clear cell RCCs exhibit sarcomatoid differentiation, indicating a higher grade and worse prognosis. Of the four reported cases, including this one, three showed sarcomatoid differentiation (Table 1).

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References


Bibliography

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