

Introduction

RCC, a neoplasm originating in the renal cortex, constitutes 80-85% of primary renal neoplasms, and accounts for approximately 3% of all malignancies in adults. RCC carries a median survival rate of 8 to 31 months, although distant metastases at the time of diagnosis are associated with worse outcomes.

Metastasis in RCC is seen in roughly 25% of all cases, and generally involves lungs, bones, liver, and brain. Although RCC has the potential to metastasize to every distant organ in advanced disease, metastases to the gastrointestinal tract are very rare.



Figure 1: Frontal CT View of Diffuse Abdominal LAN

Case Description

A 45-year-old African American male with a past medical history of end stage renal disease and hypertension presented to the emergency department with weakness, abdominal bloating, and a 15-pound weight loss for one month. He had not made urine in years, however in the prior month he began to have painless hematuria.

Computed tomography (CT) of the abdomen demonstrated lymphadenopathy throughout the abdomen, ascites, bilateral atrophic, cystic kidneys, and calcified renal transplant in the right pelvis. Paracentesis was performed and cytopathology of the peritoneal fluid collected was suspicious for malignancy.

The patient underwent upper and lower endoscopy that revealed atypical segmental sigmoid colitis, which was biopsied. Biopsy was suggestive of metastatic disease. Immunohistochemical analysis was remarkable for PAX8+, CDX2-, CK20- consistent with a renal cell carcinoma metastasis.

Patient was unable to receive chemotherapy or radiation due to performance status and went into hospice and died.

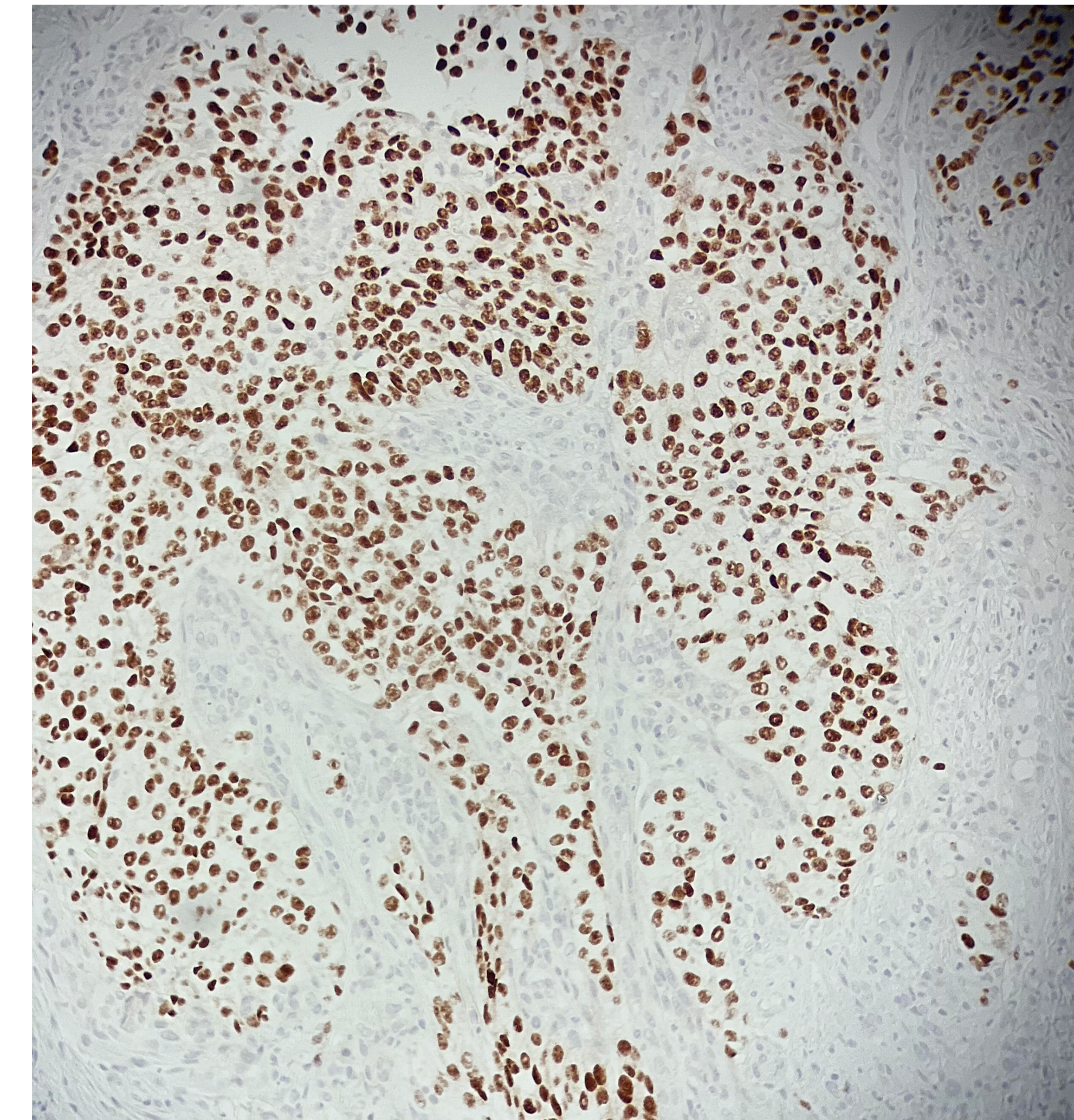
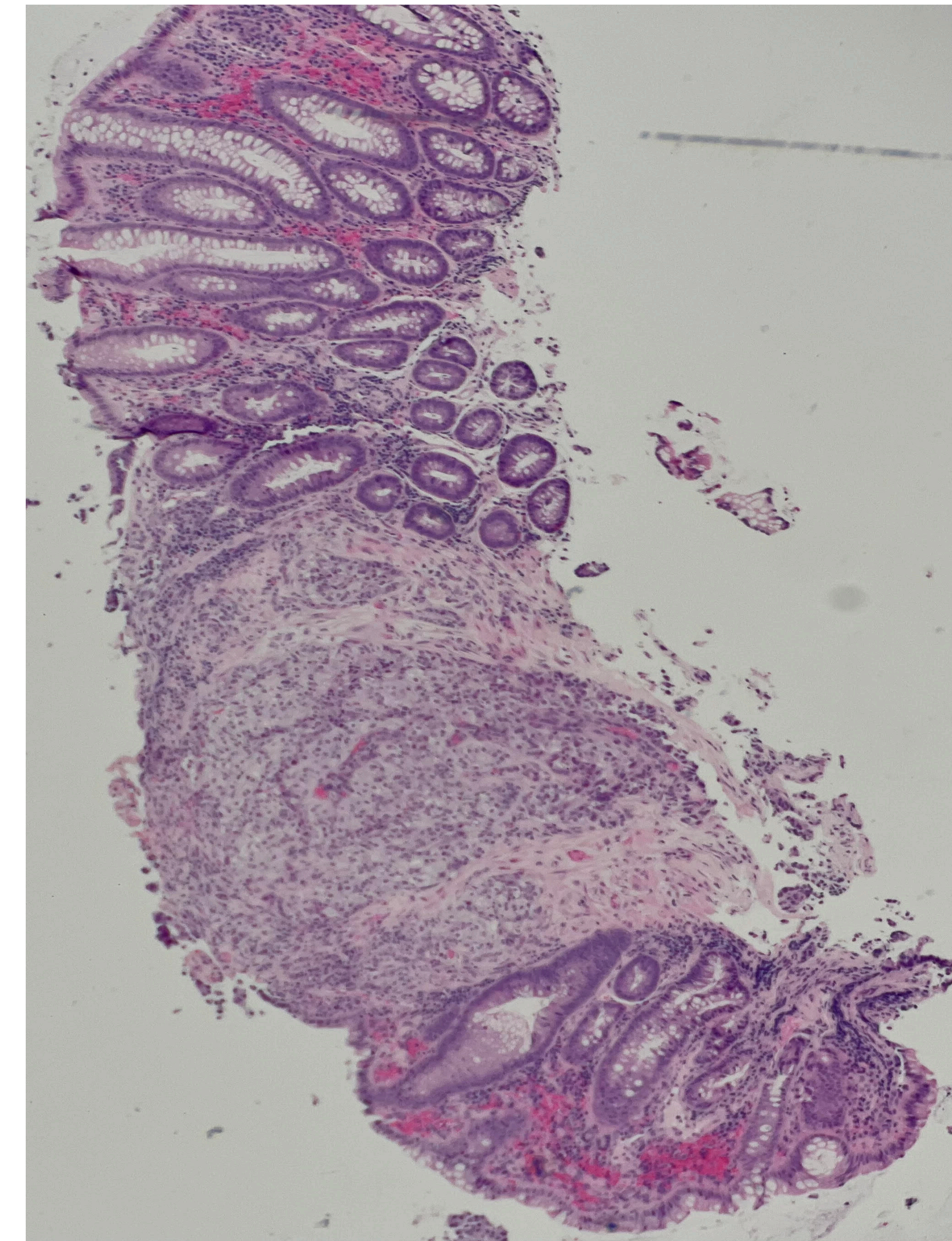


Figure 2-4: H&E, PAX8 Positive, CK20 Negative Staining Confirming Metastatic RCC to the Sigmoid Colon

Discussion

Gastrointestinal metastasis is rare in RCC. Compared to the stomach and small bowel, colon metastasis is even more rare and has little mention in medical literature. The most prevalent malignancies that spread to the colon are breast cancer, stomach cancer and melanoma.

The duration between diagnosis of the initial tumor and metastasis may range from months to years. The colon metastasis timing in our example is unknown. Interestingly, the age of presentation in our patient is unusual from most RCC cases with metastasis to the colon. Many cases in prior publications were above 60 years old, with only one case being 35 years old.

The overall 5-year survival rate in patients with RCC colonic metastases can be less than 10%, but surgical resection can improve survivability to 88 percent. Unfortunately, our patient was not a candidate for surgery or medication upon presentation and perished soon after his diagnosis.



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