Metastatic Renal Cell Carcinoma Masquerading as Hemorrhoids: A Case Report

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Background

Renal cell carcinoma (RCC) accounts for about 3% of all cancers present today and has become the 7th leading cancer type in men in the U.S. with a gender ratio of about 2:1 male to female. It has an increased incidence in African-American population. In contradistinction, anal cancer has an annual incidence of approximately 1 to 1.9 per 100,000 in Western countries, constituting less than 5% of all carcinomas of the lower gastrointestinal tract. It has a reported gender ratio of 1:2 female to male. Metastatic tumors that involve the GI tract are uncommon, of which malignant melanoma, choriocarcinoma, and carcinomas of the lung, breast, kidney, and stomach are the most common. Even then, metastatic tumor involvement of the anal canal is very rare.

Case Description

We present an 88 year old female who originally presented to the ED in late 2018 with lightheadedness, fever, chills, large bloody bowel movements and an external anal mass initially diagnosed as hemorrhoids. She was briefly observed in the ED at that time and then discharged with a referral to our outpatient colorectal surgery clinic for further evaluation and treatment. Her oncologic history is significant for grade 3 clear cell RCC of the left kidney in 2014 for which she underwent left radical nephrectomy. Four years later she was found to have a large inflammatory lesion in the rectosigmoid colon beginning about 15-20 cm above the anal verge. Pathology of the biopsied lesion revealed RCC, clear type. She underwent exploratory laparoscopy and creation of diverting loop colostomy. Prior to presenting to our clinic for evaluation, the patient had been receiving chemotherapy treatment with Opdivo (Nivolumab) for RCC.
During her evaluation in our clinic, she was noted to have a large (approximately 4-5cm) pedunculated anal mass with necrosis. It was firm but freely mobile.
The lesion was considered to be more consistent with anal carcinoma than with a thrombosed hemorrhoid.

Key Findings

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Figure 1. Gross view of external anal protrusion

In the operating room, we identified several grade III external hemorrhoids as well as an oval shaped pedunculated mass protruding from the anus which was ulcerated(Figure 1). The mass was resected and submitted as anal mass tumor in formalin for permanent section.
Gross pathologic evaluation demonstrated a mass consists of a reddish brown variegated polypoid mass measuring 4.5 x 3 x 1.5 cm. The stalk measures 2.5 x 1.5 x 1.2 cm.

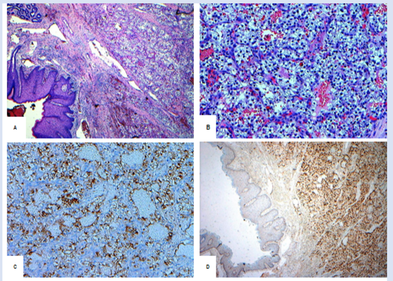


Figure 2. Relevant histology and immunohistochemistry.
(**A**) Histological appearance of biopsied mass, (x4) skin (anus) with infiltrating clear cell renal cell carcinoma. (**B**) (x10) Metastatic cells are optically clear with round to oval nucleoli and inconspicuous nucleoli and are richly vascularized. (**C**) Positive RCC stain. (**D**). Positive PAX-8 stain.

Discussion

The primary principle of RCC management remains surgical resection followed by active surveillance. Most estimates argue that around 30% of patients who present with clear cell RCC are presenting with de-novo or metastatic disease. Most recurrences have been reported to occur within 3 years of intervention, commonly to lymph nodes, bone, liver and brain. Although metastasis to the lower GI tract has been reported with primary RCC, malignancy of the anal canal of non-colorectal origin is rare. A review article published at our institution identified 8 cases of renal cell cancer with rectal metastases[3]. All cases with reported stages were either stage 3 or 4, with time to recurrence approximately 7-10 years. There was one outlier with 28 years of recurrence-free survival. This buttresses the argument that maintaining a high clinical suspicion of metastatic disease is paramount in the differential diagnosis of patients with a history of RCC presenting with rectal bleeding.

Conclusions

Hemorrhoids are one of the most common problems in colorectal practice. RCC is one of the more common cancers of the kidneys, and it often remains asymptomatic until the disease has progressed significantly.
Although very rare, RCC can metastasize to rectum and anal canal, presenting as hemorrhoids associated with rectal bleeding and discomfort. Metastatic disease should, therefore, be considered in the differential diagnosis of elderly patients with a history of RCC who present with new onset bleeding per rectum.

References

Davies JRL, Smith G, Cornaby AJ, Thomas T, Lamparelli MJ. Delayed recurrence of renal cell carcinoma presenting as a haemorrhoid. J Surg Case Rep. 2015;2015(3). doi:10.1093/jscr/rjv022
Brufau BP, Cerqueda CS, Villalba LB, Izquierdo RS, González BM, Molina CN. Metastatic Renal Cell Carcinoma: Radiologic Findings and Assessment of Response to Targeted Antiangiogenic Therapy by Using Multidetector CT. RadioGraphics. 2013;33(6):1691-1716. doi:10.1148/rg.336125110
Anwar SM, Kalbi DP, Upadhyaya A, Aqsa A, Mukherjee I. Scoping Renal Cell Carcinoma in the Rectal and Anal Canal: A Literature Review. Cureus. 2019 Dec 9;11(12):e6330. doi: 10.7759/cureus.6330. PMID: 31938620; PMCID: PMC6948093