Renal cell carcinoma with metastases to the rectum and gastric body

Michelle Bernshteyn, MD^a , Umair Masood, MD^b , Alexandria Smith-Hannah, MD^c, and Divey Manocha, MD^b

^aDepartment of Internal Medicine, State University of New York Upstate Medical University, Syracuse, New York; ^bDepartment of Gastroenterology, State University of New York Upstate Medical University, Syracuse, New York; ^cDepartment of Pathology, State University of New York Upstate Medical University, Syracuse, New York

ABSTRACT

Our case highlights renal cell carcinoma with metastases to the gastric body and rectum presenting as melena and dyspnea. Renal cell carcinoma frequently metastasizes to the lungs, lymph nodes, bones, and liver; gastrointestinal metastasis is rare.

KEYWORDS Colonoscopy; endoscopy; metastasis; renal cell carcinoma

CASE DESCRIPTION

A 68-year-old man with stage IV renal cell carcinoma (RCC) to the skin and lung, treated by right total nephrectomy and right upper lobe wedge resection, presented to the hospital with a 1-month history of dyspnea and 10 to 15 episodes of melena per day. His heart rate was 121 beats per minute and his blood pressure quickly dropped from 130/80 mm Hg to 110/60 mm Hg. His abdomen was tender. He was cachectic. His hemoglobin was 6.7 g/dL and his serum sodium level was 128 mmol/L. The hepatic panel and coagulation parameters were within normal limits. Hemoccult testing was positive. He was subsequently started on intravenous fluids, a pantoprazole infusion, and blood transfusions (2 units). A computed tomography scan of the abdomen demonstrated a metastatic lesion in the distal sigmoid colon. Endoscopy revealed a nodule in the duodenum, and a mass was visualized on the greater curvature of the gastric body (*Figure 1a*). Colonoscopy revealed a single 10-mm polyp in the rectum, which was treated with bipolar cauterization. Pathological reports demonstrated metastatic carcinoma consistent with a renal primary source (*Figure 1b*).

DISCUSSION

RCC involves malignant cell proliferation in the proximal convoluted tubules of the kidney. The most effective treatment available is resection.¹ Symptomatic treatment for any blood loss related to metastatic bleeding is also recommended.² After nephrectomy, there still is an approximate 20% to 40% chance of distal metastasis or locally recurrent disease.³ Thus, strict follow up is vital to prevent grim outcomes.⁴ Metastatic neoplasms to the gastrointestinal tract are rare, only involving 1% of total colorectal cancers.⁵

Approximately 10 cases of metastatic RCC to the colon have been reported.¹ The most common site of gastrointestinal metastasis is the duodenum.³ There have been only approximately 5 reported cases of metastatic RCC to the rectum, the most common presentation being hematochezia.³ Only 0.2%–0.7% of RCC cases have been found to have metastasized to the stomach.² The most common avenue of metastatic spread to the gastrointestinal tract is through peritoneal seeding, but dissemination via lymphatic, hematogenous, or direct invasion has been reported.³

This is the first case reported of synchronous metastasis of RCC to the rectum and gastric body. The patient presented with anemia secondary to hematochezia. Both masses

Corresponding author: Michelle Bernshteyn, MD, Department of Medicine, State University of New York Upstate Medical University, 750 East Adams Street, Syracuse, NY 13204 (e-mail: bernshmtm@upstate.edu)

Color versions of one or more of the figures in the article can be found online at www.tandfonline.com/ubmc.

Received September 15, 2019; Revised November 4, 2019; Accepted November 12, 2019.

Figure 1. (a) Endoscopic imaging demonstrating a 25-mm frondlike/villous, polypoid, and ulcerated mass with no bleeding on the greater curvature of the gastric body. (b) Histology demonstrating metastatic carcinoma consistent with a renal primary infiltrating the normal colonic epithelium. Normal colonic glands and lymphoid aggregate are shown on the lower right.

were observed by bidirectional endoscopy, and the diagnosis was confirmed through histological analysis of biopsied tissue.

ORCID

Michelle Bernshteyn <http://orcid.org/0000-0003-4457-8165>

Umair Masood <http://orcid.org/0000-0002-1170-405X>

1. Vo E, Palacio CH, Omino R, et al. Solitary colon metastasis from renal cell carcinoma nine years after nephrectomy: A case report. *Int J Surg Case Rep.* 2016;27:55–58. doi:10.1016/j.ijscr.2016.07.053.
2. Sakurai K, Muguruma K, Yamazoe S, et al. Gastric metastasis from renal cell carcinoma with gastrointestinal bleeding: a case report and review of the literature. *Int Surg.* 2014;99(1):86–90. doi:10.9738/INTSURG-D-13-00115.1.
3. Ouellet S, Binette A, Nguyen A, et al. Metastatic renal cell carcinoma initially presenting with hematochezia and subsequently with vaginal bleeding: a case report. *BMC Urol.* 2018;18(1):4. doi:10.1186/s12894-018-0317-8.
4. Zheng G, Li H, Li J, et al. Metastatic renal clear cell carcinoma to the rectum, lungs, ilium, and lymph nodes: A case report. *Medicine (Baltimore).* 2017;96(1):e5720. doi:10.1097/MD.0000000000005720.
5. Galanopoulos M, Gkeros F, Liatsos C, et al. Secondary metastatic lesions to colon and rectum. *Ann Gastroenterol.* 2018;31(3):282–287. doi:10.20524/aog.2018.0244.