Metastatic Urothelial Bladder Cancer Involving the Rectum

by Chung Sang Tse, Yousef Elfanagely, Sean Fine

INTRODUCTION

Urothelial carcinoma of the bladder (UBC) accounts for 90% of all primary bladder tumors.[1] Although 75% of newly diagnosed UBCs are noninvasive, they have a high rate of recurrence despite treatment.[2] Recurrence most often occurs locally in the bladder or remaining upper tract with <1% involving the colon.[3] We present a case report of a patient whose initial presentation of metastatic UBC to the rectum was bright red blood per rectum and acute anemia.

Case Report

An 85-year-old man, former smoker, with a history of stage IIIA (pT3aN0M0) urothelial carcinoma of the bladder status post radical cystectomy and ileal loop conduit eight years prior was admitted to the hospital for 3-4 days of progressive scrotal pain and swelling that had not responded to outpatient ketoconazole topical ointment. Physical examination revealed a swollen and erythematous scrotum, which was tender to palpation. Initial laboratory work-up was notable for normocytic anemia with hemoglobin 8.0 g/dL (normal 13.5-16.0 g/dL), mean corpuscle volume 83 fL (normal 80-98 fL) without leukocytosis (white blood cell count 6.9 x 10^9/L). His scrotal cellulitis was treated with piperacillin-tazobactam.

Over the course of two hospital days, he developed hematochezia and acute chronic anemia with a down-trending hemoglobin of 6.2 g/dL. Gastroenterology was consulted. His abdominal exam was soft, non-tender, and non-distended with blood noted on rectal exam. Flexible sigmoidoscopy revealed a large rectal ulcer (Figure 1) with oozing. Adjacent to the ulcer was impacted stool. A diffuse area of erythematous mucosa was also found in the rectum. Given the appearance of the ulcer and the adjacent impacted stool, a stercoral ulcer was the suspected source of the bleed. Biopsies of the ulcer bed and surrounding tissue revealed rectal mucosa with urothelial carcinoma with positive immunohistochemical staining of cytokeratin 7 (CK7) (Figure 2), keratin 20 (CK20), and GATA3. For the remainder of the patient's hospital stay, his bleeding subsided and hemoglobin stabilized. Palliative immunotherapy was pursued per the patient's and family's requests but was not tolerated. Hospice services were requested for comfort care; he ultimately died six months later.

Discussion

Bladder cancer is the second most common genitourinary malignancy. In the United States, approximately 70,000 patients are newly diagnosed with bladder cancer annually.[4] Risk factors for bladder cancer include smoking and exposure to aromatic amines.[2] Urothelial bladder cancer (UBC), a subtype of bladder cancer, comprises 90% of all primary bladder cancers.[3] Approximately 75% of newly-diagnosed UBCs are noninvasive while the remaining 25% invade the muscular layers and require radical surgery or radiotherapy.[2] Radical cystectomy is the current gold standard for muscle invasive UBC.[5] Common distal recurrence and metastasis sites are lungs, liver, and lymph nodes (nonpelvic).[6] However, local recurrence is more

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A CASE REPORT

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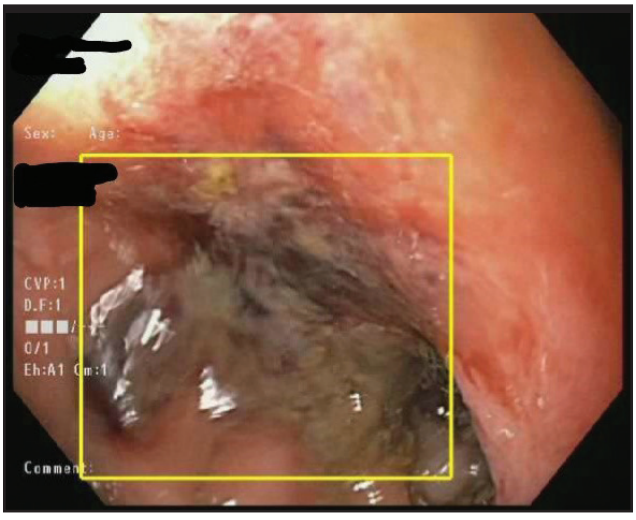

Figure 1. Flexible Sigmoidoscopy of the Rectum – Single ulcer in the rectum with adjacent impacted stool

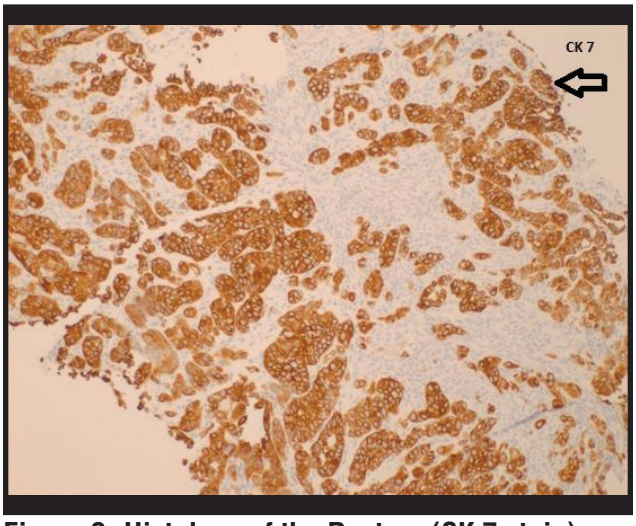

Figure 2. Histology of the Rectum (CK 7 stain)

common in the bladder or remaining urinary tract.[3] The clinical presentation of recurrent UBC varies depending on the site of recurrence, most commonly with no symptoms, venous status, or localized pain.[7]

Gastrointestinal tract involvement of metastatic UBC is rare.[3] Literature review has identified 34 reported cases, with 16 involving rectal metastases.[8] Five cases presented with hematochezia.[3,8] Four cases of metastatic UBC involving the rectum occurred after radical cystectomy.[8] Recurrence of bladder cancer after radical cystectomy occurs in up to 40% of patients and has been attributed to potential occult metastasis and/or seeding during surgical intervention.[5]

Unique to this case was its endoscopic finding. Colonoscopy has confirmed metastases to rectum in three other cases. However, the tissues biopsied were of fixed masses or thickened rectal wall.[8] In our case report, the tissue biopsied was a single ulcer. Because of the appearance of the ulcer, a stercoral ulcer was thought to be the source of the bleeding. This circumstance highlights the importance of obtaining biopsies from an ulcer bed during colonoscopy for histological examination in the appropriate clinical setting.

CONCLUSION

Gastrointestinal tract involvement of metastatic UBC is rare. In this case report, a patient presented with hematochezia, found to be secondary to metastatic UBC involving the rectum. An ulcer was identified on endoscopy, and initially was suspected to be secondary to a stercoral ulcer. Biopsies were taken and consistent with metastatic disease, highlighting the importance of obtaining biopsies from an ulcer bed. ■

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