

Deceptive Presentation of Metastatic Cancer: Rectal Pain and Obstruction Leading to Diagnosis of Urothelial Carcinoma by Endoscopic Evaluation

Vikas Sethi, DO; Shivani Trivedi, DO; Ashwani Sethi, MD, MS

BACKGROUND

Rectal metastasis of urothelial cancer is extremely rare. Typically, metastatic sites include lungs, liver, or bone with presenting symptoms usually consisting of genitourinary complaints (1). In this case, we present a case who presented with GI complaints, leading to extensive evaluation leading to a diagnosis of urothelial cancer metastatic to the rectum. This diagnosis of urothelial cancer, made in complete absence of urological complaints, is extremely atypical with no case reports documenting such an occurrence.

CASE PRESENTATION

An 86-year-old male presented to the GI Clinic with a 4-week history of rectal discomfort and a constant urge to pass gas. He had a prior history of prostate cancer treated with radiation. There were no urinary symptoms including hematuria, dysuria, or changes in urinary frequency. CT Scan showed mild right hydronephrosis with marked thickening of the rectum (Image 1). A detailed rectal exam revealed a mass with a tight stricture (Image 2). Urgent sigmoidoscopy was done which revealed an atypical rectal mass which could not be negotiated with a gastroscope. Pathology of the mass showed a poorly differentiated carcinoma and immunohistochemical staining suggested urothelial cancer and he underwent an urgent laparoscopic loop colostomy and biopsy of the anorectal mass (Image 3). Later, cystoscopy revealed a bladder tumor focused on the right trigone ladder wall base. This 4 cm bladder wall mass was resected and the patient had a right nephrostomy tube placed. A PET/CT scan revealed a soft tissue fullness with abnormal FDG accumulation in the right urinary bladder base with maximum SUV 5.2 and no evidence of metastasis. Because of poor performance status, the patient declined Pembrolizumab treatment and elected for hospice care.

Imaging



Image 1. Rectal wall thickening and perirectal/presacral fat stranding suggest proctitis

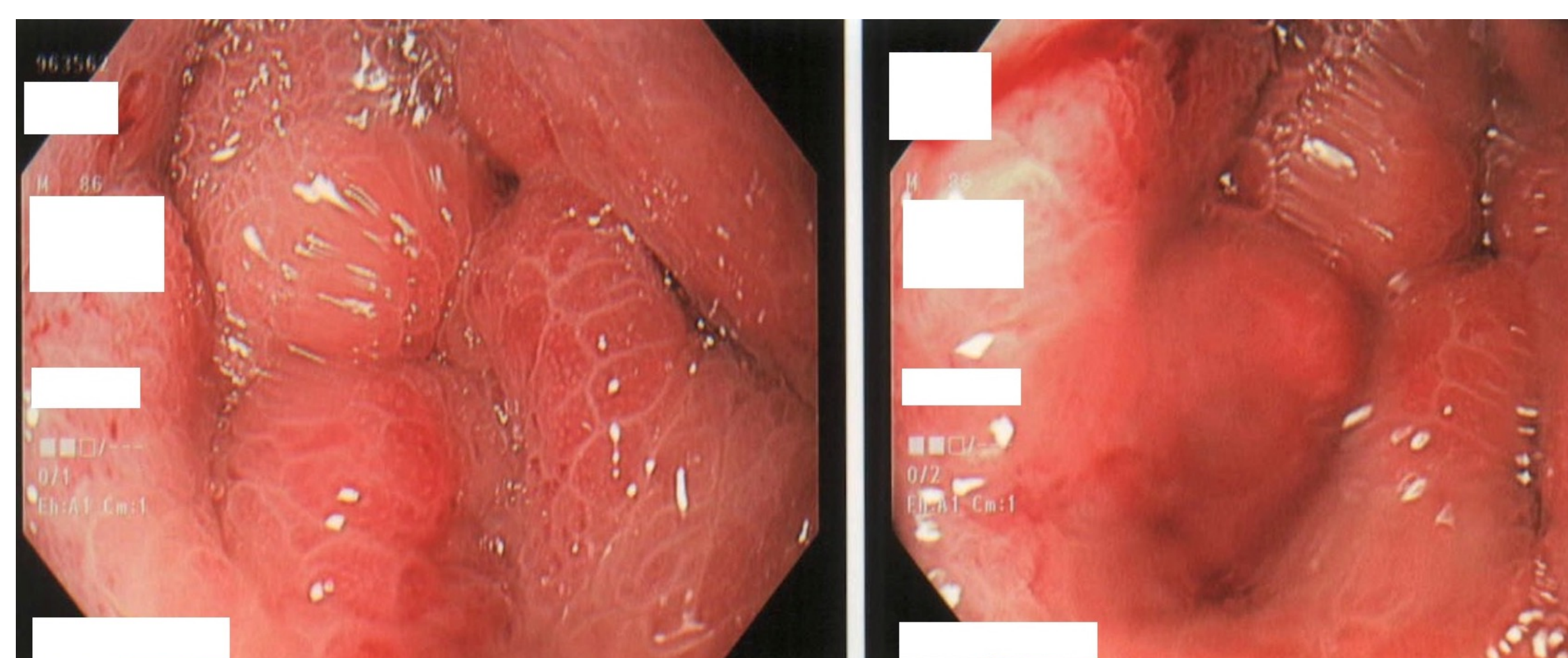


Image 2. Obstructing rectal mass creating tight stricture observed on colonoscopic evaluation

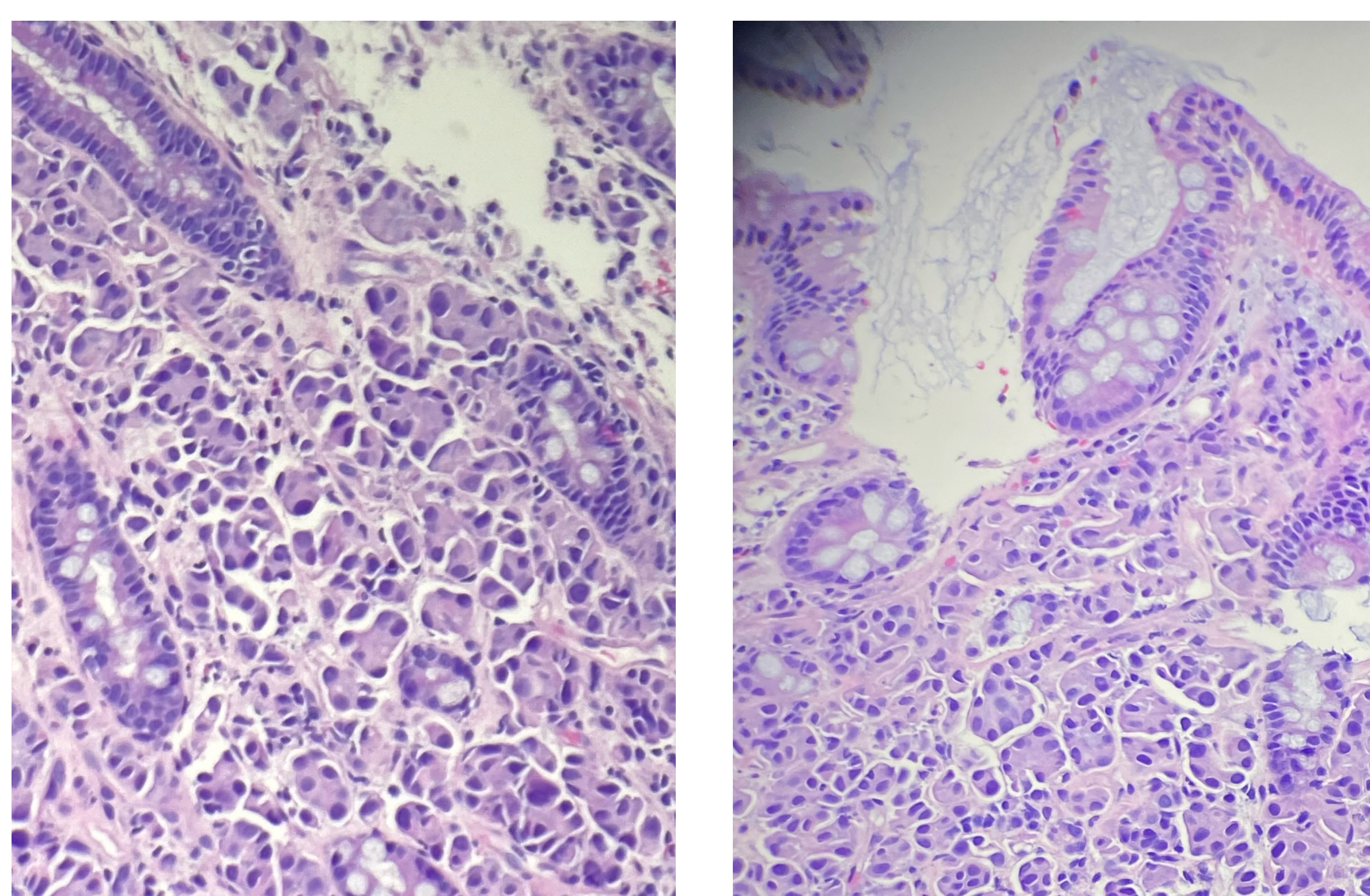


Image 3. Malignant neoplasm in the submucosa composed of small nests in a micropapillary pattern with hyperchromatic nuclei. Cytokeratin 7 and GATA 3 positivity raises the possibility of involvement by a primary urothelial carcinoma

Discussion

The route of metastasis for urothelial cancer to the rectum are unknown. Current theorized routes are iatrogenic exposure, direct invasion through the bladder wall via Denonvilliers fascia to the rectum, or metastasis via the lateral pedicles of the bladder to the posterior rectal wall followed by the wall infiltration (2). In the case of this patient, his prior history of prostate cancer treated with radiation and TURP may have caused a mechanism of iatrogenic injury allowing for a route of metastasis. Otherwise, direct extension via fascial migration or pedicle spread could have also contributed to metastasis.

CONCLUSION

While urothelial carcinoma rarely metastasizes to the rectum, it has been documented in several case reports. Two different meta-analyses and another individual case report show 17 occasions where this phenomenon occurred, but in each case there was evidence of urinary symptoms or previous diagnosis of urothelial carcinoma (3, 4, 5). This case demonstrates a unique presentation of metastasis without preceding genitourinary symptoms or a previous diagnosis of urothelial cancer, which led to the primary diagnosis via sigmoidoscopy and subsequent pathology. This demonstrates the need to keep a wide differential when assessing rectal masses and symptoms of obstructive defecation even if a patient presents with no urinary symptoms or history of malignancy.

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