Rectal Wall Recurrence Of Transitional Cell Carcinoma Of The Bladder Masquerading As An Abscess Cavity

C Talug, R Morabito, C Deskins, K Beggers, S Zaslau

Abstract
Presented is a case report of a man who developed recurrent transitional cell carcinoma, post radical cystoprostatectomy with negative lymph nodes that presented as a peritoneal abscess/ hematoma. This patient presented as a diagnostic dilemma in that his recurrent transitional cell carcinoma did not present in a typical manner. He was febrile and his CT scan revealed a pelvic mass filled with fluid and air. Additionally, all lymph nodes were negative at the time of the cystectomy, which further decreased his likelihood of having residual disease.

INTRODUCTION
Radical cystectomy is the standard of care for muscle-invasive transitional cell carcinoma of the urinary bladder. However, this procedure is fairly invasive and is not without frequent complications, occurring in about 25% of cases. The most common early complications are hematoma and abscess formation. Hematomas usually produce no symptoms and are discovered incidentally on a CT scan. Abscess formation can also be indolent but usually produces systemic signs of infection and appear on CT scan as pelvic masses with air bubbles. In fact, on CT a pelvic mass containing gas is diagnostic of an abscess formation. Conversely, peritoneal bladder cancer recurrence is seen on CT scan as a solid mass, with or without central necrosis, that does not contain air pockets.

CASE REPORT
A 69-year-old man, who had undergone a radical cystoprostatectomy with ileal conduit for muscle invasive bladder transitional cell carcinoma 5 months previously, presented to the clinic with the inability to have a bowel movement. A CT scan demonstrated an 8.4 x 6.6 cm pelvic fluid collection. An interventional radiologist placed a percutaneous drain, and while in the hospital, the patient began moving his bowels again. The patient was hemodynamically and vitally stable and was discharged with the drain still in place.

At the time of his cystoprostatectomy, bilateral inguinal node dissections were performed, and all lymph nodes as well as bilateral ureteral margins, were determined to be negative for malignancy under pathologic review. Additionally, the prostate was noted to have prostatic adenocarcinoma with uninvolved margins. A CT scan two weeks following the surgery demonstrated normal post-surgical changes with no evidence of abscess, hematoma, or soft tissue masses.

The man presented to the ED two weeks after the drain placement complaining of bleeding around the drain catheter. A CT scan was repeated, and demonstrated an increase in size of the pelvic fluid collection (figures 1 and 2).
Figure 1
FIGURE 1: Axial view of CT scan of the pelvis which reveals a multi-loculated pelvic fluid collection. No evidence of rectal wall thickening is noted.

Figure 2
FIGURE 2: Coronal view of CT scan of the pelvis which reveals a multi-loculated pelvic fluid collection. No air or gas is seen.

At this time the patient was febrile, and a decision was made to perform an exploratory laparotomy to drain the fluid collection. During the operation, the pelvic fluid was identified to be a large, multi-loculated hematoma with a thick surrounding rind. The cavity was evacuated, and samples were sent to pathology. With removal of the overlying clot, a small amount of stool was noted within the cavity. This stool was determined to be of rectal origin, and no obvious small bowel injury. This rectal involvement with the pelvic abscess/hematoma was treated with a diverting loop colostomy. The pathology report demonstrated poorly differentiated carcinoma. This neoplasm was morphologically similar in appearance to the previously resected bladder tumor. Based on this evidence, it was determined that the pelvic abscess/hematoma was in fact a rectal wall recurrence of bladder transitional cell carcinoma.

DISCUSSION
This patient presented as a diagnostic dilemma in that his recurrent transitional cell carcinoma did not present in a commonly recognized fashion. He was febrile and his CT scan revealed a pelvic mass filled with fluid and air. Additionally, all lymph nodes were negative at the time of the cystectomy, which further decreased his likelihood of having residual cancer. CT scan has been determined to be the most sensitive test in diagnosing bladder cancer recurrence in patients who have already undergone a cystectomy. The pelvic mass was not known to invade the colon wall until the time of surgery. Without this knowledge, a pelvic fluid mass containing gas in a febrile patient is classic for post-cystectomy abscess. In retrospect, the recurrent cancer may have eroded into the wall of the colon, allowing gas from the GI tract to enter the pelvic mass. This case is an example of how CT scan findings can be misleading when attempting to diagnose the cause of a pelvic fluid collection in a patient who has undergone a radical cystectomy for transitional cell carcinoma.

References
Author Information

Can Talug, MD
Assistant Professor, Division of Urology, West Virginia University

Rocco A. Morabito
Chief Resident, Division of Urology, West Virginia University

Christopher Russell Deskins
Medical Student, Division of Urology, West Virginia University

Kristen Beggers
Medical Student, Division of Urology, West Virginia University

Stanley Zaslau, MD
Professor and Chief, Division of Urology, West Virginia University