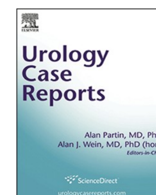
Urology Case Reports 30 (2020) 101123

Contents lists available at ScienceDirect

Urology Case Reports

journal homepage: http://www.elsevier.com/locate/eucr



Oncology

Enterovesical fistula secondary to transitional cell carcinoma of the bladder in a 20 years old patient: A rare entity

Abdelghani Ouraghi *, Amine EL. Houmaidi, Tarik Mhanna, Mohamed Irzi, Wassim mhammedi Alaoui, Ali Barki

Department of Urology, Mohammed IV University Medical Center, Faculty of Medicine and Pharmacy, Mohammed the First University Oujda, Morocco

A R T I C L E I N F O

Keywords:
Entero-vesical fistula
Bladder cancer
Muscle invasive
Young adult
Crohn disease

A B S T R A C T

Bladder cancers are not very common in young people under 20 years, especially with an atypical presentation such as faecaluria due to enterovesical fistula.

This report describes the case of a 20 years old man who was diagnosed with a mass involving the small intestine and bladder during the course of investigations for faecaluria and abdominal pain. Histopathological examination of the biopsies during cystoscopy revealed: muscle invasive transitional cell carcinoma, while the computerized tomography scan had confirmed the enterovesical fistula.

The patient was traited by Radical cystectomy with extended pelvic lymph node dissection and ileocecal resection as ultimate curative treatment.

Introduction

Fistulation between the gastrointestinal tract and the lower urinary tract is uncommon. Most frequently, these originate from a pathological process in the gastrointestinal tract with a urological cause being much less frequent. Especially secondary to primary bladder cancer in a 20 years old male.

The diagnosis of a bladder cancer in a young adult can make a great challenge to the clinician especially with an atypical symptomatology, with the consequence of it being diagnosed late[1]

Here we report a case of an entero-vesical fistula secondary to transitional cell carcinoma (TCC) of the bladder fistulating into the ileum and presenting with feacaluria and recurrent urinary tract infections.

Case report

We present the case of a 20 years old patient, who has never smoked, has not been exposed to industrial chemicals and alcohol. His only medical history was the suspicion of crohn's disease after his suffer of chronic diarrhea for over a year, and he had a fibro and colonoscopy which was negative of any abnoramlities. About the family history there was an uncle first degree who died at the age of 32 from a malignant hemopathy.

The patient was admitted to the emergency department with a history of 6 weeks of faecaluria and a right iliac fossa pain.

Physical examination revealed: apyrexic patient, general deterioration, slightly discolored conjunctiva, flexible abdomen without any mass and free ganglionic areas.

Blood test revealed hemoglobin level of 13 g/dl and normal renal function. Urinalysis was indicative of a urinary tract infection and the culture found an E.coli.

The abdominal pain don't show any sign of peritoneal irritation. The ultrasound exam revealed a mass with an irregular contour on the wall of bladder, suggesting vegetation compatible with a vesicular tumor.

Cystoscopy under spinal anesthesia revealed a vegetative lesion about 6 cm in diameter on the bladder dome, the ureteric orifice were noted, no visible fistula. many biopsies were performed and analyzed histopathologically which revealed a muscle invasive transitional cell carcinoma grade 2 associated with carcinoma in situ (Fig. 1).

Thoracic, abdominal and pelvic computerized tomography (CT) scan with contrast enhancement shows: irregular budding thikenning of the dome and the lateral wall of bladder, and There was contrast seen entering the small intestine,as well as, gas consistent in the bladder with an entero-vesical fistula (Fig. 2).

The patient underwent a total cystectomy with extended pelvic lymph node dissection and ureterostomy, associated with an ileo-ceacal resection (Fig. 3). Pathological examination of the bladder revealed a

* Corresponding author.
E-mail address: abdelghaniouraghi@gmail.com (A. Ouraghi).

https://doi.org/10.1016/j.eucr.2020.101123
Received 8 December 2019; Received in revised form 11 January 2020; Accepted 13 January 2020
Available online 17 January 2020
2214-4420/© 2020 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

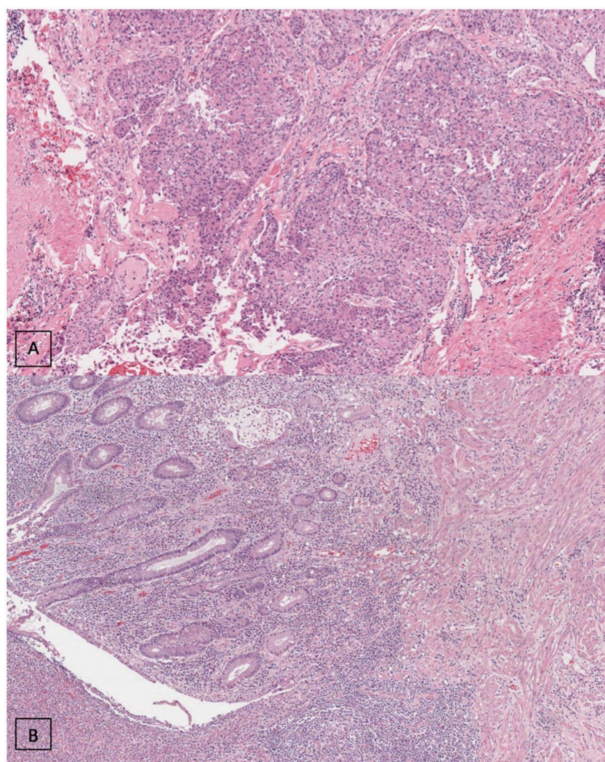


Fig. 1. (A) Histological image of transitional cell carcinoma and atypical mitosis (hematoxylin and eosin staining; magnification: x100). (B) typical morphology of crohn (x100).

muscle invasive high grade urothelial carcinoma which infiltrates the fistula, with ileo colitis lesions in favor of crhon's disease.

Two days after the surgery, the patient get complicated with a enterocutaneous fistula which been treated with medical management.

Discussion

In the majority of cases, Over 75% of patients with an enterovesical fistula (EVF) present with pneumaturia, faecaluria, and recurrent urinary tract infections.Faecaluria is a pathognomonic symptom due to high bladder wall compliance which contributes to low intravesical pressures, thus favoring flow from bowel to bladder.[2] They may present with the classic Gouverneur syndrome a constellation of symptoms including suprapubic pain, frequency, dysuria, and tenesmus.[3]

In the beginning the cause of our patient's symptomatology was unclear, he had a chronic diarrhea just the same as many cases which had been reported in the literature.[3,4]

The key to the diagnosis of EVF is always to be aware that it may exists, though it is made on a clinical basis. There are a variety of different modalities for confirmation; there is no consensus on a diagnostic algorithm and no clear gold standard study exists. Useful diagnostic studies include CT scan, magnetic resonance imaging, cystoscopy, barium enema, poppy seed test and colonoscopy. CT scan may demonstrate air or contrast within the bladder, thickening of the bladder wall, or an extraluminal gas-containing mass adjacent to the bladder. Ultimately, the most definitive test is exploratory laparotomy.[3]

The review of the literature of Bladder Cancer in patients younger has shown that the majority of cases are very easy to treat and good long-term survival statistics,[1] in another review of Bladder Cancer in patients younger than 30 years of age, only 3.0% had muscle–invasive disease and only 1.7% had high–grade tumor.[5] Tough, concerning our case there is no definitive study exists of the treatment outcomes for enterovesical fistula due to carcinoma. All these tumors are T4 by definition due to extravesical spread, that's what makes our case a unique one.

Therefore, complete surgical excision of the bladder malignancy with en bloc resection of the involved segment of small bowel is the only surgical procedure which can be performed with a curative intent. Yet, prognosis remains relatively poor with an overall 44% 5 years and a 23% 10 years of survival.[2]

However, certain aspects of treatment are important in young bladder cancer patients; young male patients undergoing Radical cystectomy may suffer from post–operative infertility and impotence. Prostate and seminal vesicles sparing Radical cystectomy in addition to nerve sparing procedure can be a valuable option for those patients. Preservation of urinary continence by performing a nerve sparing procedure and orthotopic neobladder urinary diversion is preferred to attain a proper quality of life and body image.[5]

In our patient, ileal neobladder urinary diversion was not performed due to suspicion of Crohn's disease.

Conclusion

- Entero-vesical fistula due to bladder carcinoma can be severely debilitating to the young adult. Unfortunately, even palliative treatment has a significant rate of morbidity and mortality making this disease incredibly difficult for both patient and provider.
- the above report is the first in the literature, our goal is to specifically highlight tumor pathology in the young patient (bladder tumor in our patient), this diagnosis should not be missed or delayed and we would like to raise clinicians' index of suspicion for bladder cancer in the underage 20 group.

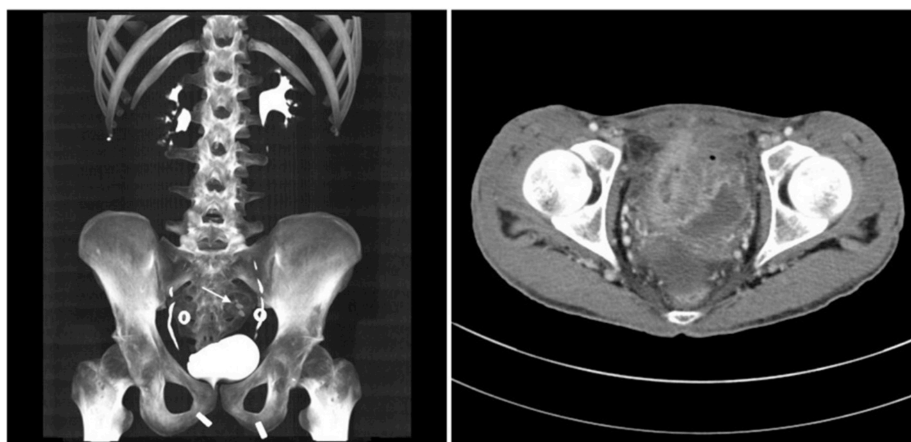


Fig. 2. Computed Tomography images of a mass involving the bladder and small intestine. with contrast passing into the small intestine.

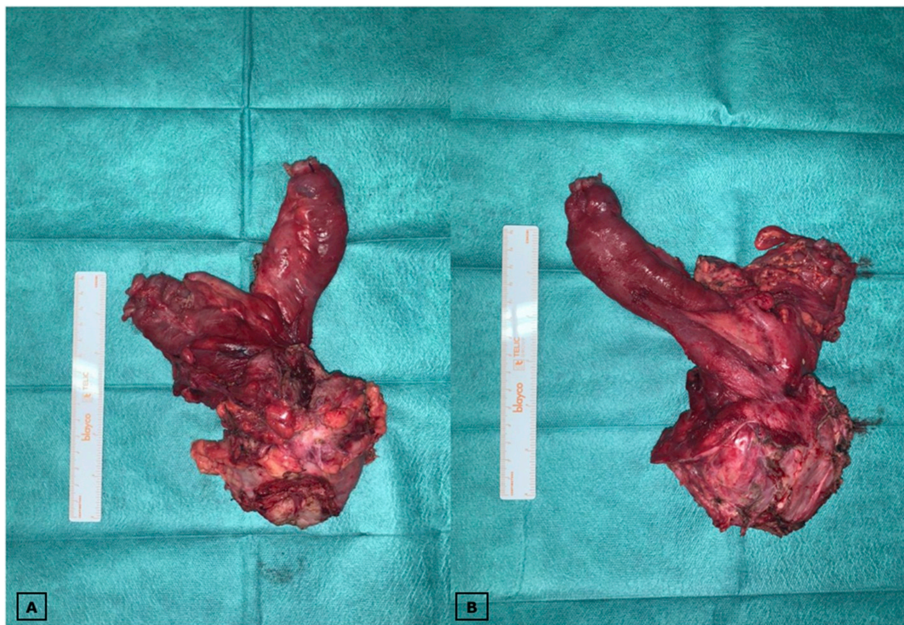


Fig. 3. Operative findings: anterior (A) and posterior (B) view of the enterovesical fistula between the bladder and ileoceacal region.

Author contribution

Dr. Abdelghani OURAGHI : study concept and writing the paper. Dr. Amine EL HOUMAIDI : data collection. Dr. Tarik MHANNA : data collection. Dr. Wassim MHAMMEDI ALAOUI : data collection. Dr. Mohamed IRZI : data collection. Pr . Ali Barki : data interpretation and correction.

Declaration of competing interest

The authors do not declare any conflict of interest.

References

1. Sheehan L, Anwar A, Kommu S. Presentation of case: bladder cancer in an 18 year old female patient. *Int J Surg Case Rep*. 2015;7:42–46.
2. Bugeja M, Mizzi C, Ellul E, Bugeja S, Mattocks S. Enterovesical fistula secondary to transitional cell carcinoma of the bladder. *Surg J*. Oct-2018;4(4):e201–e204. United States.
3. Sellers W, Fiorelli R. Enterovesical fistula secondary to squamous cell carcinoma of the bladder. *Urol Case Rep*. 2015;3(6):201–203.
4. Daniels IR, Bekdash B, Scott HJ, Marks CG, Donaldson DR. Diagnostic lessons learnt from a series of enterovesical fistulae. *Colorectal Dis*. 2002;4(6):459–462.
5. Nabbout P, Eldefrawy A, Engles CD, Culkin DJ, Slobodov G. Muscle-invasive bladder cancer in a young adult: a case report and a review of the literature. *Cent Eur J Urol*. 2013;66(2):185–187.