

Metastatic umbilical mass from transitional cell carcinoma of the bladder

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SPIESS PE, KASSOUF W, TUKARAM K, ROY I. Metastatic umbilical mass from transitional cell carcinoma of the bladder. *The Canadian Journal of Urology*. 2005;12(5):2856-2858.

We present the case of an 83-year-old female presenting with an umbilical mass measuring 2 cm x 3 cm. This patient had an extensive prior history of transitional cell

carcinoma of the bladder. A fine needle aspiration of this umbilical mass confirmed this to be metastatic transitional cell carcinoma and the diagnostic workup demonstrated the presence of invasive bladder cancer with metastatic liver lesions.

Key Words: umbilicus, transitional cell carcinoma, bladder

Introduction

Metastatic bladder transitional cell carcinoma (TCC) is most frequently known to involve regional lymph nodes, lung, liver, and bone. However in less than 10% of cases,¹ metastatic bladder cancer can spread to unusual sites such as the eye,² testis,³ and skin.⁴ We report a case of metastatic bladder cancer presenting as an umbilical mass. Only two such cases have been reported.^{5,6}

Accepted for publication September 2005

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Case report

An 83-year old white woman presented to the emergency with a 2 week history of an umbilical mass slightly tender on palpation. The patient had a 10-year history of recurrent bladder TCC. Her initial bladder tumor was situated at the right bladder base and she underwent an uneventful transurethral bladder tumor resection (TURBT). The pathology of this tumor was T1G2 and she underwent a repeat TURBT which confirmed the absence of muscularis propria invasion. Over the subsequent years, the patient developed six recurrent superficial bladder tumors all treated with TURBTs as well as a complete induction and maintenance course of intravesical Bacillus Calmette-Guerin (Connaught strain). All of the patient's recurrences involved the right and left

bladder base with none involving the bladder dome. Other than her past medical history of bladder cancer, she suffered from severe chronic obstructive pulmonary disease, type 2 diabetes, and hypertension.

On presentation to the emergency room with this umbilical metastasis, she described a 2 week history of a growing and painful umbilical mass with a fluid discharge. The patient complained as well of urinary frequency (6-8 times/day) and dysuria but denied having gross hematuria or other urinary symptoms. She had some decreased appetite over the last several months with no notable weight loss or other constitutional symptoms. On physical examination, a large 2 cm x 3 cm well circumscribed umbilical mass was visible with some clear discharge, Figure 1. On pelvic exam, a solid and fixed mass was palpable over the suprapubic area suspicious for locally invasive bladder cancer. Initial investigations revealed microscopic hematuria with a urine cytology showing atypical transitional cells. We obtained a fine needle aspiration biopsy of the umbilical mass under ultrasound guidance which revealed cells consistent with TCC. Pathology review of the previous bladder tumor resections and umbilical mass aspirate by the same pathologist (IR) confirmed these specimens to be consistent with high-grade TCC. A computerized tomography scan of the abdomen and pelvis was then obtained revealing several hypodense areas in the liver suspicious for metastases, Figure 2A. As well, a solid appearing mass in the region of the umbilicus was seen with no visible patent urachus between the bladder and the umbilical lesion, Figure 2B and a markedly thickened bladder wall with invasive carcinoma extending into the vagina, Figure 2C. The presence of invasive carcinoma of the bladder was confirmed on cystoscopy and biopsy. The patient also

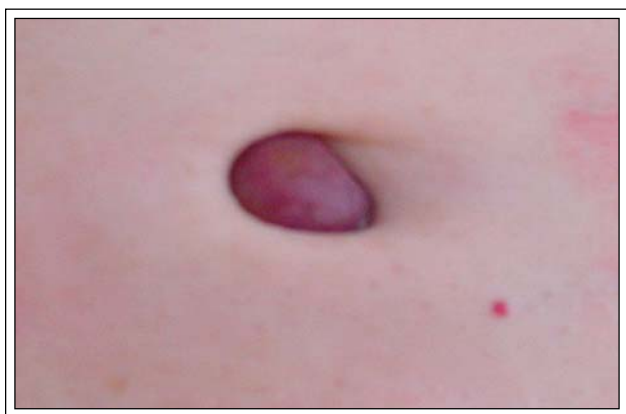


Figure 1. Gross morphological appearance of the umbilical mass.

had a bone scan revealing only degenerative changes with no suspected metastatic bone lesions.

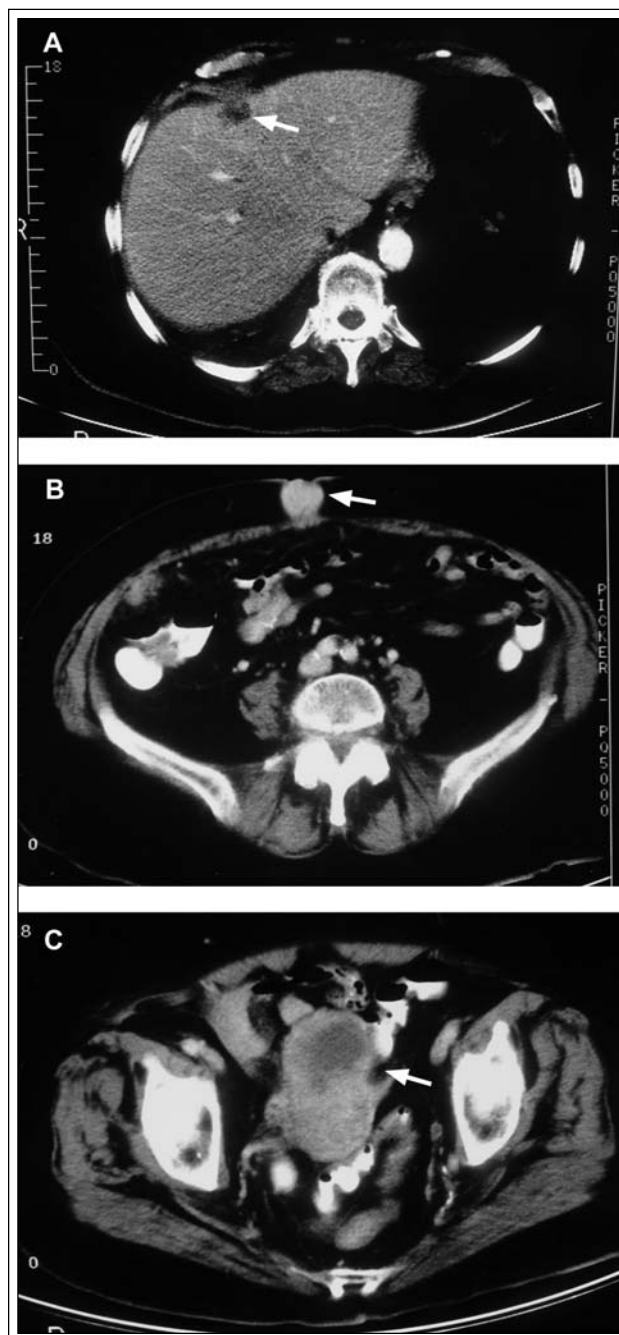


Figure 2. Computed tomography scan of the abdomen/pelvis revealing:

- A. Hypodense lesion in the liver (arrow) suspicious for liver metastasis.
- B. Well circumscribed umbilical mass (arrow) with no patent urachus visible.
- C. Invasive transitional cell carcinoma of the bladder (arrow) with very thickened bladder wall.

The patient was seen by the oncology service and was presented at our multi-disciplinary tumor board. Due to the advanced stage of her cancer as well as her co-morbid conditions, she was solely offered external beam radiotherapy to the umbilical mass for palliation. The patient declined the radiotherapy and was followed by the palliative service. At 5 months follow-up, she remains alive with an indwelling catheter for management of her incontinence secondary to her small, contracted bladder and her umbilical mass remains essentially unchanged causing her only mild discomfort.

Comment

The most frequent primary tumors metastasizing to the umbilicus are the stomach, colon, pancreas, and ovary.⁶ As well, most of these tumors are adenocarcinomas. However in this patient, the umbilical mass was metastatic bladder TCC. Only two cases of metastatic bladder cancer to the umbilicus have been reported,^{5,6} with this patient being the third such case. Fine needle aspiration of the umbilical mass can establish the diagnosis possibly avoiding the morbidity of an open biopsy. □

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