

CASE REPORT

Cervical lymph node metastasis from transitional cell carcinoma of urinary bladder: Case report and review of literature

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Received: February 16, 2012

Accepted: April 15, 2012

Published: June 1, 2012

DOI: 10.5430/jst.v2n3p59

URL: <http://dx.doi.org/10.5430/jst.v2n3p59>

Abstract

The bladder cancer usually metastasizes to regional pelvic lymph nodes, lungs, liver and bones. Metastasis to non-regional lymph nodes especially cervical lymph nodes is extremely rare presentation. Metastasis to head and neck region is associated with poor prognosis and low survival rate. Here-in we report a case cervical lymph node metastasis in patient with muscle invasive bladder cancer.

Key words

Transitional cell carcinoma, Urinary bladder, Cervical lymph nodes, Metastasis

Introduction

Transitional cell carcinoma of urinary bladder is most common urologic malignancy in developing countries ^[1]. Common site for metastatic bladder carcinoma is regional lymph nodes, lungs, bones and brain. The most common lymph nodes involved are external, internal iliac and obturator (20%-45%) as the primary lymphatic drainage of the bladder and the common iliac sites as the secondary drainage ^[2]. However, lymph node metastasis above the diaphragm especially in head and neck region is extremely rare. Only few reports have been published so far and with poor prognosis ^[3]. We report a case of patient with transitional cell carcinoma of bladder with solitary left supraclavicular lymph nodes metastasis without any bony or visceral metastasis.

Case report

Fifty eight year old male, who was diagnosed as a case locally advanced muscle invasive transitional carcinoma of the bladder stage T3N0M0, underwent transurethral resection of bladder tumor (TURBT) followed by radical course of chemo-radiotherapy with total dose 6600cGy to the tumor as a bladder preserving therapy, as he deferred the option of radical cystectomy (Figure 1). After the completion of treatment he was lost to follow up.



Figure 1. CT scan of pelvis showing muscle invasive bladder carcinoma at base of bladder

After one year of completion of his treatment, he presented in clinic with rapidly growing swelling in left supraclavicular region over a period of two months; though to an abscess and was started on antibiotics by a general practitioner, but there was no response. On physical examination, patient was emaciated and afebrile. There was a hard, fixed and severely tender mass in left supraclavicular region of size 5cm × 5cm with erythematous surface (Figure 2). The rest of examination was unremarkable with no other lymphadenopathy and visceromegaly. The differential diagnoses were made as metastatic cervical lymphadenopathy from synchronous head and neck region tumor and infective lymphadenopathy.



Figure 2. Physical examination of neck showing erythematous, tender hard enlarged lymph node in left supra-clavicular region

Laboratory tests showed low hemoglobin (8gm/dL), High Total leucocytes count (TLC) 16,000/mm^[3] with normal urea, creatinine and electrolytes. Follow cystoscopy showed no residual or recurrent tumor in urinary bladder. Computed Tomography (CT) scan showed isolated left supraclavicular lymph node metastasis of size 6.7cm × 5.6cm × 4cm size with extra capsular extension into the skin (Figure 3a and Figure 3b). The CT chest, abdomen and pelvis were within normal limits. Bone scan was also negative for bony metastasis. Biopsy of cervical lymph node was obtained. Pathologic examination of the specimen confirmed recurrent metastatic transitional cell carcinoma, which was further supported by immunohistochemistry (Figure 3c).

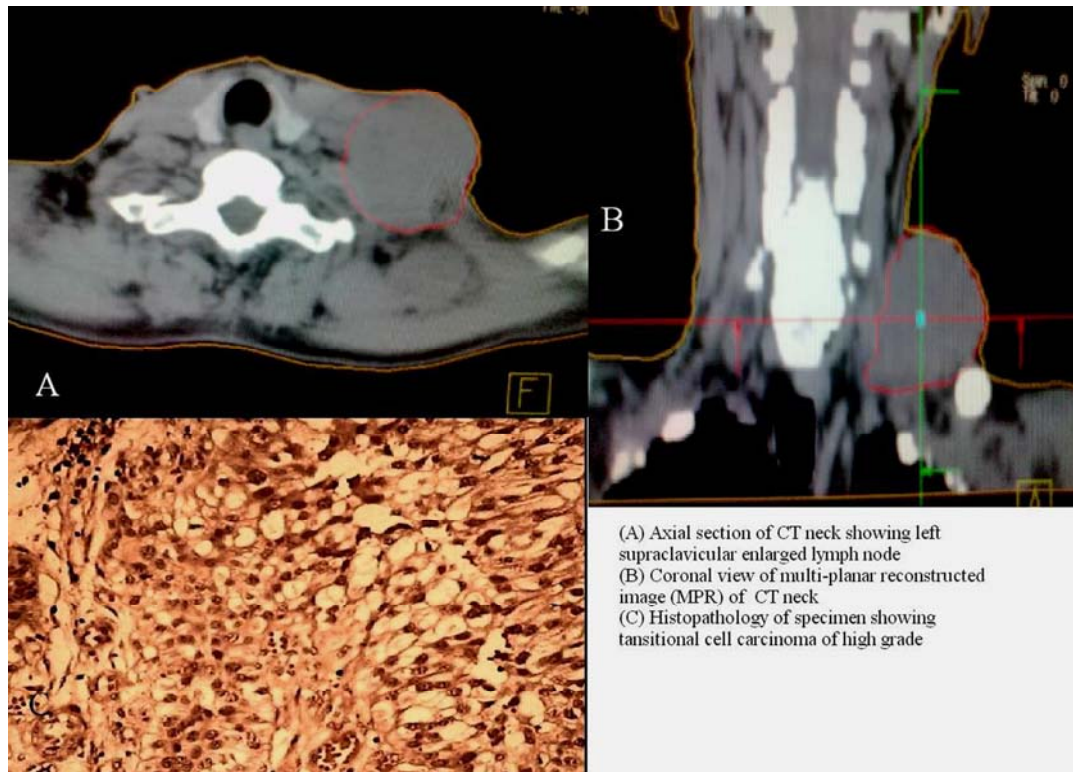


Figure 3. (A) CT scan of neck axial images showing enlarged left supra-clavicular lymph node with extranodal extension. (B) Multiplanar reconstructed images of CT neck showing left supraclavicular lymph node with extension up to skin and (C) histopathology of specimen shows the high grade transitional cell carcinoma

For painful lesion, this patient was treated with palliative radiotherapy with 6 MV photon of dose 3000 cGy in ten fractions (five fractions per week). After the completion of radiation therapy he was pain free and was referred to medical oncology for palliative chemotherapy. Patient died six months after the initial presentation with metastatic disease.

Discussion

The cervical lymph nodes are a common site of metastasis for cancers originating in the head and neck and upper aerodigestive tract. Rarely, cancers originating from sites other than the head and neck can metastasize to the cervical lymph node chain. However, genitourinary tract tumors especially renal cell carcinomas make up a significant proportion of these cancers and should be considered in the differential diagnosis of metastatic lesions of the head and neck^[4]. According to one large retrospective autopsy data, metastases of bladder cancer to the cervical or axillary lymph node sites occur in a very low rate^[5]. A 9-year review of patients with head and neck metastases from 845 urogenital tract tumors (kidney, prostate, bladder, testes, penis, urethra and ureter) showed that only 31 (3.7%) of these tumors developed metastases to the cervical and supraclavicular lymph nodes^[6]. There has been one case report of transitional cell cancer of

the bladder is mentioned that manifested as an extensive large lymph node metastasis involving the intraparotid, supraclavicular, axillary and regional abdominal and pelvic lymph nodes without bone or visceral organs involved^[7].

The possible route of spread to head and neck region is by hematogenous through vertebral veins and by lymphatics^[8]. Due to few case reports and shorter survival rates; it is difficult to comment on standard treatment of metastatic cervical lymph nodes. However in many patients, palliative radiation therapy and chemotherapy has been offered^[9].

In conclusion, genitourinary tumors especially bladder cancer have been shown to metastasize to cervical and axillary lymph nodes in rare instances. Therefore, the work-up of new head or neck lesions with past history of bladder cancer should include metastases as part of the differential diagnosis.

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