International Journal of Advances in Medicine
Ramya V et al. Int J Adv Med. 2019 Feb;6(1):194-196
http://www.ijmedicine.com
pISSN 2349-3925 | eISSN 2349-3933
DOI: http://dx.doi.org/10.18203/2349-3933.ijam20190130

Case Report

Transitional cell carcinoma of urinary bladder with cervical lymph node metastasis: a case report and review of literature

Ramya V.*, Sahayaraj J.

Department of Pathology, Kilpauk Medical College, Chennai, Tamilnadu, India

Received: 10 August 2018
Accepted: 11 September 2018

***Correspondence:**
Dr. Ramya V.,
E-mail: ramyavengatesan@gmail.com

ABSTRACT

Bladder cancer usually spreads via the lymphatic and hematogenous routes, the common sites of metastases of urinary bladder cancers being the regional lymph nodes, liver, lung, bone, peritoneum, pleura, kidney, adrenal gland and intestines. 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 of cervical lymph node metastasis in patient with muscle invasive bladder cancer.

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

INTRODUCTION

Transitional cell carcinoma of urinary bladder is most common urologic malignancy in developing countries. TCC is a heterogeneous tumor with a variety of clinical, biological and functional characteristics. Nevertheless, despite the combinations of surgical approaches and systemic chemotherapy, TCC of the bladder is considered highly aggressive and in some cases tends to produce early metastasis.[1]

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. However, lymph node metastasis above the diaphragm especially in head and neck region is extremely rare.[2] Only few reports have been published so far and with poor prognosis.

We reported a case of patient with transitional cell carcinoma of bladder with supraclavicular lymph nodes metastasis.

CASE REPORT

Sixty-two-year-old female, who was already diagnosed elsewhere as a case of High grade muscle invasive urothelial carcinoma involving left anterolateral wall of the bladder and was treated initially with neoadjuvant chemotherapy as per tumour board policy. Post therapy after 6months, patient came for follow up. She gave complaints of complete intermittent hematuria since 10 days.

MRI has been done and was diagnosed with residual disease. Case was again discussed in tumour board and planned for anterior pelvic exenteration. She underwent laparoscopic anterior pelvic exenteration with open ileal conduit. Postoperative histopathology revealed High grade urothelial carcinoma infiltrating the deep muscularis propria with perineural invasion(ypT2bNx) (Figure 1, Figure 2). Medical oncologist suggested observation with close follow up. Patient defaulted and after six months she presented with swelling in left supraclavicular region. On examination multiple lymph nodes were palpable largest measuring 2cms X 1cm.

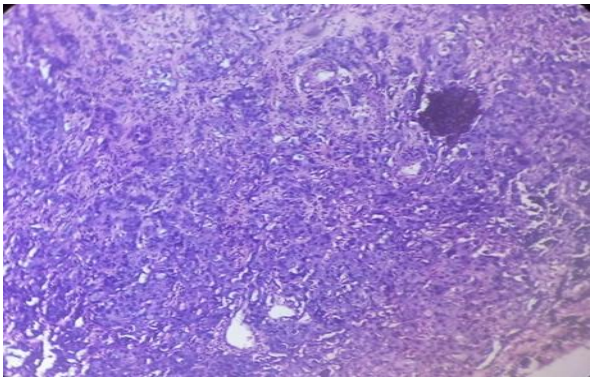

Figure 1: High grade urothelial carcinoma, 40x view.

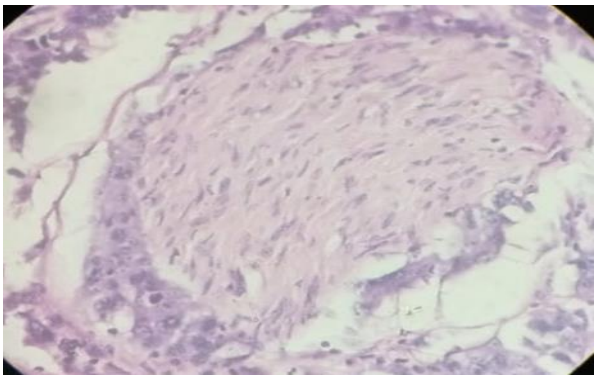

Figure 2: Perineural invasion in urothelial carcinoma.

The rest of the examination was unremarkable with no other lymphadenopathy and visceromegaly. Due to the significant size of the node FNAC was planned. FNAC of cervical node was done by the oncologist and sent to the pathology department. Slides were stained with routine hematoxylin and eosin stains. Examination of the slides under microscope revealed cellular smear showing clusters, sheets and singly scattered atypical epithelial cells with scant cytoplasm and round to oval pleomorphic hyperchromatic nuclei in a background of lymphocytes and hemorrhage.

Hence reported as Metastatic transitional cell carcinomatous deposits in left supraclavicular nodes (Figure 3, Figure 4).

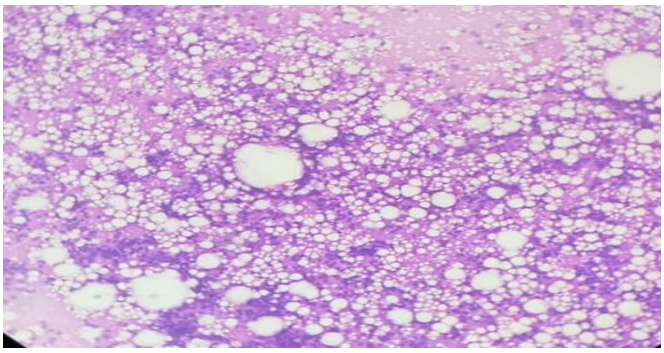

Figure 3: FNAC of supraclavicular node-scanner view.

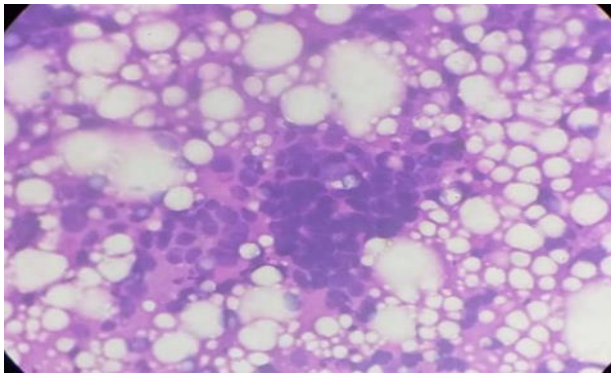

Figure 4: FNAC of supraclavicular node-high power view.

DISCUSSION

The cervical lymph nodes are common site of metastasis for cancers originating in the head and neck, 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 head and neck.

TCC is a heterogeneous tumor with a variety of clinical, biological and functional characteristics. Nevertheless despite the combinations of surgical approaches and systemic chemotherapy, TCC of the bladder is considered highly aggressive and in some cases tends to produce early metastasis.[1]

Cervical lymph node metastases of urothelial carcinoma are very uncommon and indicate widespread disease with poor prognosis.[3] Pusztaszeri et al, reported a case of a 44-year-old man with metastatic micropapillary carcinoma of the bladder presenting with a cervical lymph node metastases, diagnosed on FNAC.[4] Hessan et al, reported similar cases presenting, but only in 3 of 207 patients (1.4%) of a case series.[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.[5]

Although urogenital tract tumors with cervical lymph node metastasis are not common, the frequent metastasis location is mostly supraclavicular lymph nodes.[6]

According to one large retrospective autopsy data, metastases of bladder cancer to the cervical or axillary lymph node site occur in very low rate.[7]

The possible route of spread to head and neck region is by hematogenous through vertebral veins and by lymphatics.[8]

Spread through the bloodstream may be explained by primary tumor infiltration of the venous plexuses of the bladder or prostate gland. These thin-walled plexuses have few valves and drain into the internal iliac vein toward the general circulation. Infiltration of the pelvic plexuses may in turn cause metastatic spread through the vertebral venous system, bypassing the cavas and producing tumor invasion of head and neck structures without thoracic or abdominal organ involvement.[9]

As it is documented from the literature in metastatic lesions of the bladder there is a clear predominance among the men, whereas in females, TCC of the bladder present lesser natural aggressiveness.[10] But in our case is a female presented with distant metastases.

CONCLUSION

In conclusion, genitourinary tumours especially bladder cancer has 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.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Al-Sukhun S, Hussain M. Molecular biology of transitional cell carcinoma. Critical Reviews in oncology/hematology. 2003 Aug 1;47(2):181-93.
2. Vazina A, Dugi D, Shariat SF, Evans J, Link R, Lerner SP. Stage specific lymph node metastasis mapping in radical cystectomy specimens. J Uro. 2004 May 1;171(5):1830-4.
3. López F, Rodrigo JP, Silver CE, Haigentz Jr M, Bishop JA, Strojan P, et al. Cervical lymph node metastases from remote primary tumor sites. Head Neck. 2016 Apr;38(S1):E2374-85.
4. Pusztaszeri M, Douaihy N, Pelte MF, Pache JC. Cervical lymph node metastasis of a micropapillary carcinoma of the bladder: A case report with fine-needle aspiration cytology and differential diagnosis. Diag Cytopathol. 2013 Jul 1;41(7):617-9.
5. Hessan H, Strauss M, Sharkey FE. Urogenital tract carcinoma metastatic to the head and neck. Laryngoscope. 1986 Dec;96(12):1352-6.
6. Haas I, Hoffmann TK, Engers R, Ganzer U. Diagnostic strategies in cervical carcinoma of an unknown primary (CUP). Euro Oto-Rhino-Laryngol. 2002 Jul 1;259(6):325-33.
7. Wallmeroth A, Wagner U, Moch H, Gasser TC, Sauter G, Mihatsch MJ. Patterns of metastasis in muscle-invasive bladder cancer (pT2-4): an autopsy study on 367 patients. Urologia Internationalis. 1999;62(2):69-75.
8. Tunio MA, Asiri M, Ahmad S. Cervical lymph node metastasis from transitional cell carcinoma of urinary bladder: Case report and review of literature. J Solid Tumors. 2012 Jun 1;2(3):59.
9. Cohen DM, Green JG, Diekmann SL, Howell RM, Harn SD. Maxillary metastasis of transitional cell carcinoma: report of a case. Oral Surg, Oral Med, Oral Pathol. 1989 Feb 1;67(2):185-9.
10. Laor E, Schiffman Z, Reid RE, Tolia BM, Freed SZ. Sex-dependent variations in natural historyof transitional cell carcinoma of bladder. Urol. 1984 Mar 1;23(3):237-9.

Cite this article as: Ramya V, Sahayaraj J. Transitional cell carcinoma of urinary bladder with cervical lymph node metastasis: a case report and review of literature. Int J Adv Med 2019;6:194-6.