

Cervical Lymphadenopathy: Could it be Prostate Cancer?

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Received: November 28, 2024; Accepted: December 14, 2024; Published: December 21, 2024

ABSTRACT

INTRODUCTION

One of the most prevalent malignancies in males is prostate cancer, which often metastasizes to the bone, liver, thorax, and local lymph nodes. The current case describes a rather rare initial presentation of the same.

PRESENTATION OF CASE

A 55-year-old gentleman presented with complaints of lower back pain and swelling on the left side of his neck for the past two months. Physical revealed several swollen cervical lymph nodes that measured 2 centimeters, were non-tender, firm, and adhered to the skin above. A poorly differentiated adenocarcinoma was revealed on cytopathological examination of the left cervical lymph nodes. Computed Tomography scan findings pointed to the possibility of metastases. Serum PSA was 364.762 ng/ml. The patient was then scheduled for hormonal therapy.

DISCUSSION

The current report highlights the importance of timely detection of malignancies, particularly those such as Prostate cancer, that are slow growing and have well-established screening tools (such as PSA assays). Involvement of the cervical lymph nodes in prostate cancer, particularly for older individuals, is nearly always linked to extensive metastatic disease. As a result, it is a poor prognostic factor for prostate cancer patients, whose survival rates are markedly lower. Although hormone therapy has advanced significantly as the cornerstone of care for metastatic prostate cancer, the prognosis for these cases is still quite poor, especially when there have been distant lymph node metastases.

CONCLUSION

Cervical lymph nodal involvement, though very rare, can be the initial presentation of prostatic carcinoma and a practicing clinician must be mindful of the same.

KEYWORDS

Supraclavicular lymphadenopathy; Metastatic prostate cancer; Prostate; Cervical lymph node; Case report

Citation: Ekansh Gupta, Cervical Lymphadenopathy: Could it be Prostate Cancer?. Cancer Med J 7(3): 168-171.

INTRODUCTION

Prostate cancer is one of the most common cancers among men; with bone, regional lymph nodes, liver, and thorax being the common sites for metastases [1]. Distant metastases from cancer prostate preferentially go to bones, but the possibility of atypical metastasis should not be overlooked [2]. It includes cervical lymphadenopathy which remains a rather rare initial presentation and is seen in <0.1% of the patients diagnosed with prostatic carcinoma [3].

PRESENTATION OF CASE

A 55-year-old male presented to orthopedic OPD with chief complaints of low back pain and swelling in the left side of the neck for the past 2 months. Physical examination revealed multiple enlarged lymph nodes in the neck up of size 2 centimeters, non-tender, hard, and fixed to the overlying skin. Aspiration cytology of the left lower cervical lymph node revealed poorly differentiated adenocarcinoma. In search of a possible primary, CT (Computed Tomography) scan of the thorax and abdomen was done. The scan reported mild prostatomegaly, peri-rectal and retroperitoneal lymphadenopathy, lymph node mass along the left external iliac vessels encasing the left distal ureter with upstream moderate hydronephrosis, mediastinal lymphadenopathy and sclerotic lesions involving the dorso-lumbar vertebrae and the pelvic bones suggestive of metastasis. Serum PSA level was reported to be 364.76 ng/ml.

With suspicion of metastatic prostate carcinoma, mpMRI prostate was requested. It revealed prostates of size 2.8 cm × 3.8 cm × 4 cm with an ill-margined T2 hypointense mass involving the peripheral gland on the left side in the region of mid-portion of prostate with extra-prostatic extension, hence, categorized as PIRADS V (Figure 1). TRUS-guided prostate biopsy was done; and it confirmed adenocarcinoma prostate with poor differentiation, Gleason score = 5 + 5, Gleason grade group 5 (Figure 2).

In view of metastatic prostate cancer, the patient was put on androgen deprivation therapy as per local protocol.

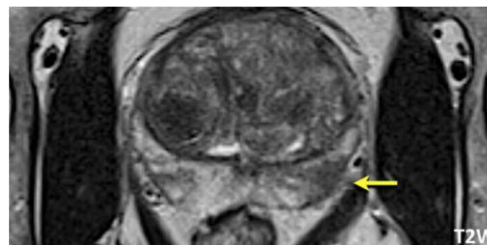


Figure 1 (a)

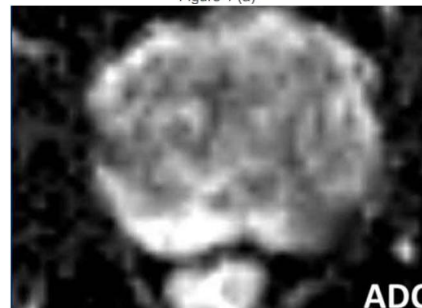


Figure 1 (b)



Figure 1 (c)

Figure 1: **A)** 21 mm lesion (measurement not marked) is located in the peripheral zone of prostate, dorsally in mid-portion on left side (yellow arrow) and it has broad-based contact with the capsule in T2W image. **B)** It is markedly hypointense on ADC, and **C)** Markedly hyperintense on DWI.

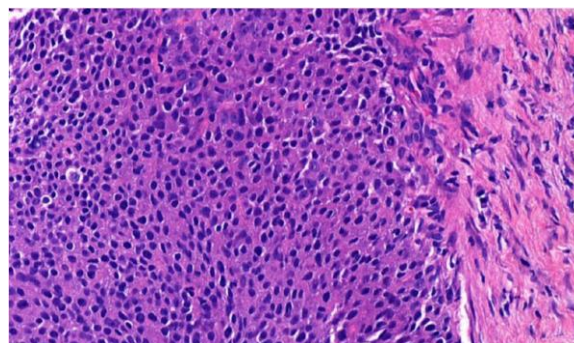


Figure 2: Microphotograph of H&E (hematoxylin and eosin) stained slides of the TRUS-guided (Transrectal

ultrasound guided) biopsy prostate (performed after MRI as systematic (12-core) biopsy + targeted biopsy (using cognitive fusion)) shows poorly differentiated adenocarcinoma of prostate; Gleason score 5 + 5 and ISUP Grade Group 5 is noted.

DISCUSSION

Cervical lymph node involvement in prostate cancer is an extremely rare phenomenon, seen in <0.1% of individuals with prostatic cancer. Cancers presenting with cervical lymphadenopathy are usually acquired from head and neck malignancies involving the mucosal surfaces of the aerodigestive tract [2,4]. Many of these patients, first visit the Medicine or Otorhinolaryngology departments; eventually prolonging their evaluation before appropriate therapy is initiated.

Batson et al. hypothesized that head and neck metastasis from prostate cancer occurs due to hematogenous spread through the vertebral venous system [5]. However, the argument for hematogenous dissemination fails to delineate the propensity of this carcinoma to metastasize to the left cervical region as compared to the right side [5].

A more plausible theory is of lymphatic spread to cervical lymph nodes. The prostate is richly supplied by lymphatics which drain into obturator-hypogastric and presacral nodes and from these nodes to the iliac, para-aortic, cisterna chyli, and thoracic duct [6]. Finally, the lymphatic drainage enters systemic blood circulation via left subclavian vein [6]. Tumor cells can then lodge into left cervical nodes by retrograde spreading due to the proximity of these nodes to the point of entry of the thoracic duct into the left subclavian vein [7].

Cervical lymph node involvement in prostate cancer is almost uniformly associated with widespread metastatic disease. It is thus a poor prognostic factor in patients with prostate cancer, and the survival rates are significantly reduced in such patients [8].

Prostate cancer should always be considered in the differential diagnosis of elderly men presenting with supraclavicular lymphadenopathy in the setting of an unknown primary malignancy, even in the absence of any clinical symptoms suggestive of prostatic carcinoma. In such patients, a digital rectal examination of the prostate along with serum PSA must be performed in the initial outpatient evaluation. In case of doubt, immunohistochemistry with PSA staining of lymph node tissue is an option.

While hormonal treatment has come a long way as the mainstay of treatment of metastatic prostate cancer, the prognosis of such cases, particularly in the setting of distant lymph node metastasis, remains dismal [9]. Reporting of such cases brings to light the importance of timely detection of malignancies, particularly Prostate Cancer which has well-established screening tools and effective treatment [10].

CONCLUSION

Though unusual, an enlarged cervical lymph node may be the initial presentation of metastatic prostate cancer. Individuals should be advised to adhere strictly to advised screening programs, to allow for early detection of malignancy particularly one such as prostate cancer, that is treatable if detected in time.

DECLARATION

Patient Perspective

Not applicable.

Patient Consent

The patient's consent was sought for the above manuscript for information and publication purposes.

Patient Confidentiality

Patient confidentiality is maintained at all times.

Conflicts of Interest

None.

Sources of Funding

Not applicable.

Institutional Review Board or Ethical Committee

Approval

Not applicable.

REFERENCES

1. Gandaglia G, Abdollah F, Schiffmann J, et al. (2014) Distribution of metastatic sites in patients with prostate cancer: A population-based analysis. *The Prostate* 74(2): 210-216.
2. Liu Y, Dai Z, Hao J, et al. (2023) Cervical lymphadenopathy as initial presentation of metastatic prostate cancer: A retrospective study of five cases and literature review. *Frontiers in Surgery* 10: 1081951.
3. Albadri ST, Salomão D (2021) Metastatic prostate adenocarcinoma to cervical lymph nodes: An unusual diagnosis on fine-needle aspiration biopsy. *Journal of the American Society of Cytopathology* 10(2): 231-238.
4. Carleton J, Van der Riet P, Dahm P (2005) Metastatic prostate cancer presenting as an asymptomatic neck mass. *Prostate cancer and prostatic diseases* 8(3): 293-295.
5. Batson OV (1940) The function of the vertebral veins and their role in the spread of metastases. *Annals of Surgery* 112(1): 138-149.
6. Cady B (1984) Lymph node metastases: Indicators, but not governors of survival. *Archives of Surgery* 119(9): 1067-1072.
7. Jones H, Anthony PP (1992) Metastatic prostatic carcinoma presenting as left-sided cervical lymphadenopathy: A series of 11 cases. *Histopathology* 21(2): 149-154.
8. Dattani SM, Yamada ML, Dhoot NM, et al. (2022) Metastatic prostate cancer presenting as incidental pelvic lymphadenopathy - a report of three cases with literature review. *Radiology Case Reports* 17(6): 2247-2252.
9. Bidot S, Monsrud A, Kline M, et al. (2022) Risk stratification of prostatic adenocarcinoma metastatic to the lymph nodes. *Archives of Pathology & Laboratory Medicine* 146(11): 1345-1352.
10. Catalona WJ (2018) Prostate cancer screening. *Medical Clinics* 102(2): 199-214.