Case Report

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Unusual Nodal Presentation of Carcinoma Prostate: A Case Report

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Abstract

Prostate cancer is the 2nd most common cancer in males worldwide and 6th most common in Indian males and as per Globocan 2022, 14,66,680 new cases in world and 37,948 cases in India were reported in 2022. Carcinoma prostate has an indolent course and patients usually present with urinary complaints. Widespread use of serum PSA for screening has also led to early diagnosis of the disease but they rarely present with metastatic disease. It often metastasises to regional lymph nodes and bones and rarely spread to supradiaphragmaticnodes. Left Supraclavicular node is commonly associated with gastrointestinal malignancies but association with carcinoma prostate is extremely rare (0.3%). We present a case of a 62 year old male smoker who presented to us with Supraclavicular nodal mass and an incisional biopsy of the same which was suggestive of metastatic adenocarcinoma. On metastatic workup an enlarged prostate and diffuse lymphadenopathy involving mediastinal, abdominal, retroperitoneal, paraaortic, common iliac lymph and left Supraclavicular lymph node was seen. Transrectal biopsy from the prostate was done which implied Adenocarcinoma with a Gleason score of 3+4=7 and high serum PSA was also reported. Metastatic carcinoma prostate with left Supraclavicular lymph node enlargement though a rare case presentation but should be kept as a differential in elderly male patients.

Keywords: Unusual presentation, Carcinoma prostate, Metastasis.

INTRODUCTION

Prostate cancer is the 2nd most common cancer in males worldwide and 6th most common in Indian males and as per Globocan 2022, 14,66,680 new cases in world and 37,948 cases in India were reported in 2022. Carcinoma prostate being an indolent tumour and with widespread use of Serum PSA for screening most cases are detected at an early stage but rarely it can be detected with metastatic lesions. The percentage of metastatic prostate cancer in newly diagnosed case is approximately 5%.[1] Axial skeleton is the most common site of distant metastasis while other sitesinclude lung, liver and adrenal gland. Metastasis to supraclavicular lymph nodes have been reported earlier but is extremely rare and among the few cases left supraclavicular node (Virchow's node) is the most common site. We report a case of metastatic carcinoma prostate that presented initially with asymptomatic left supraclavicular swelling.

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CASE REPORT

A 62 year old male presented with complaint of painless, palpable left sided neck swelling since 2 months and also had complaint of burning micturition since 2 months Patient had no comorbidities and no family history of malignancy. He had history of bidi smoking since 30 years and no addiction to tobacco chewing or alcohol. A CT chest revealed multiple prominent lymph nodes in supraclavicular, mediastinum and upper abdomen largest measuring 2x1cm. An excision biopsy of left supraclavicular lymph node was done outside that was suggestive of Metastatic Adenocarcinoma. On physical examination patient was fully conscious and vital signs were stable. A 4x4 cm hard, fixed to the underlying tissue and nontender swelling was noted in left supraclavicular fossa. Abdominal examination revealed tenderness in epigastric region with no organomegaly. On auscultation bilateral chest was clear with no added breath sounds. On digital rectal examination a hard nodular prostate was palpable and rectal mucosa was fixed and upper limit was not reached.

Assessment of serum PSA levels was done, which was markedly raised (606.4ng/ml). For metastatic workup a whole body PET scan was done which was suggestive of enlarged left level IV measuring 1.6x1x0.9cm (SUV max 28.43) causing infiltration of left sternocleidomastoid muscle. Enlarged mediastinal, paratracheal, paraaortic, paraesophageal, paracardiac, gastrohepatic, periportal, coeliac, retroperitoneal, paraaortic and common iliac lymph nodes were also noted . Prostate gland was enlarged in size with median lobe hypertrophy and infiltration of lesion into posterior wall of urinary bladder. Complete blood count and serum creatinine were within normal range.

Transurethral ultrasonography guided biopsy from prostate was performed which was suggestive of Adenocarcinoma prostate (*Fig. 2*) with Gleason score of 3+4=7. Perineural infiltration was present and tumor was involving all the cores. As the patient wanted some time for surgery he was given 3.75mg LHRH antagonist intramuscularly and when he presented after 10 days for surgery his supraclavicular lymph node reduced by >80% (*Fig. 1*) and his urinary symptoms alos improved. The patient was then transferred for surgical androgen deprivation therapy with bilateral orchidectomy. After orchidectomy patient will be started on Bicalutamide and local radiotheryapy to prostate after 1 month.

Fig. 1: Left Supraclavicular LN 10 days after Injection Leuprolide

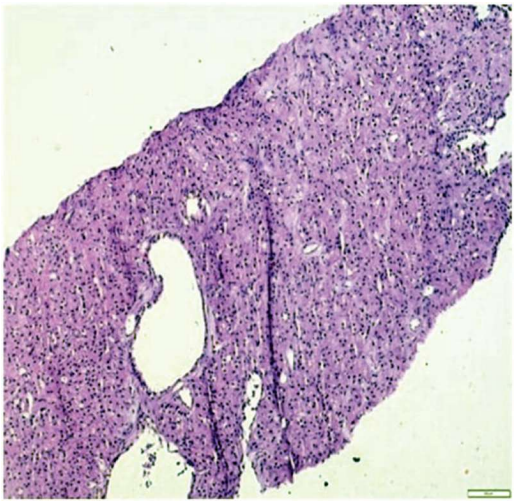

Fig. 2A: low power view Histopathological features of adenocarcinoma from prostate biopsy

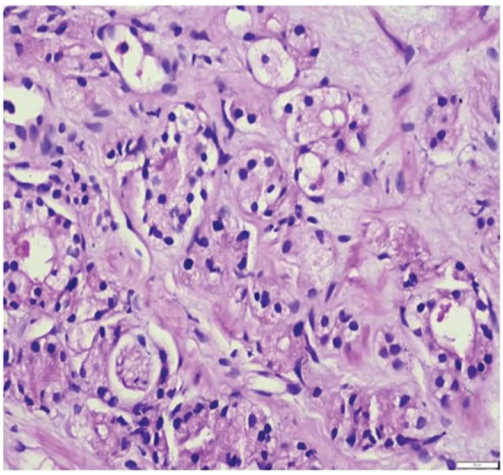

Fig. 2B: High power image

DISCUSSION

Metastatic carcinoma prostate commonly involves bone and regional lymph nodes while involvement of retroperitoneal and mediastinal lymphnode has also been reported but presenting with supraclavicular lymphadenopathy is very rare.[2] Hematpour et al reported only 4(0.3%) cases among 1400 metstatic carcinoma prostate cancer patients.[3] Malignancies associated with suparclavicula r lymph node is common in head and neck primary malignancies, lymphoproliferative disorders and also esophageal cancers. There has been association of left supraclavicular nodes described as Virchows node with distant metastasis. Rudolf Virchow in 1948 first time documented involvement of left supraclavicular lymph node secondary to malignancies from abdomen and pelvis. Cho et al reported 26 cases of metastatic carcinoma prostate in supradiaphragmatic lymph nodes of which 15 were supraclavicular, 8 were cervical, 2 were axillary and 1 was mediatstinal and among them 84.6% had high gleason score while 76% had abnormal PSA levels.[4]

Lymphatic spread in metastatic carcinoma prostate is first to pelvic lymph nodes followed by progression to retroperitoneal lymph node. The route of spread to left supraclavicular node is thought to involve regional pelvic lymph nodes, retroperitoneal lymph nodes, cysterna chilli, thoracic duct which unites with systemic circulation at left subclavian vein where it forms lymphatic extension to supraclavicular fossa and hence explains involvement Virchow node in metastatic carcinoma prostate.[5,6] Another possible explanation to supradiaphragmatic spread of prostate cancer has been postulated to be by a hematogenous route via the vertebral venous system, or Batson's plexus, accessible via direct extension from the primary cancer site.[7]

Most significant predictor of mortality in prostate adenocarcinoma is presence of distant metastasis. Prognosis of metastatic carcinoma prostate with supraclavicular lymph node is thought to be poor but some case reports have reported no progression upon initiation of androgen deprivation therapy. The mean survival of two separate case series of metastatic carcinoma prostate with Virchow node were reported as 19.8 and 29.7 months.[6] The first treatment for castration sensitive metastatic carcinoma prostate is initiation of androgen deprivation therapy.

In our case patient presented with complaint of left supraclavicular swelling and patient was investigated for primary malignancy of head and neck and lungs but neither the patient gave history of urinary symptoms nor he was enquired by the physician. When the patient presented to us with biopsy report from left supraclavicular node suggesting metastatic adenocarcinoma his urinary complaints were enquired, DRE was done and serum PSA was assessed which helped us in diagnosing the patient correctly and early. In a case series by Butler et al of 19patients of carcinoma prostate with supraclavicular metastasis only 42% had abnormal digital rectal examination.

Due to the rarity of this group long term follow up should be done to assess the prognosis. Unusual presentation and patterns of spread imposes difficulty in diagnosis therefore elderly male patient presenting with supraclavicular lymphadenopathy, urinary complaints should be enquired and metastatic carcinoma prostate should be kept as a differential by physicians. Early diagnosis of such disseminated carcinoma prostate will surely be a survival benefit among such patients.[8,9]

CONCLUSION

Although a unusual presentation of carcinoma prostate, any elderly male presenting with supraclavicular lymphadenopathy should be evaluated for carcinoma prostate by the physicians. Clinical examination and advance imaging modalities may diagnose such cases earlier resulting in favourable Outcome and reduced morbidity and mortality related to this malignancy.

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