



## LEFT AXILLARY LYMPHADENOPATHY AS INITIAL PRESENTATION OF METASTATIC PROSTATE CANCER MASQUERADING AS LYMPHOMA: A RARE CASE REPORT AND REVIEW OF THE LITERATURE.

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### ABSTRACT

**Introduction And Importance** Prostate cancer is one of the top ten leading cancer in India. It usually affects men in the age group of 65+ years. However, recently there has been an increase in reports of cancer in younger men in the age group of 35-44 and 55-64 residing in metropolitan cities. Old age, obesity, improper diet, and genetic alterations have been identified as some of the main contributing factors towards an increased cause of prostate cancer. Advanced prostate cancer often presents with lower urinary tract symptoms together with features of cancer on digital rectal examination. The commonest sites of metastasis include bone, lymph node, liver and lungs. Metastasis to axillary lymph nodes is extremely unusual particularly as initial presentation of the disease. **Case Presentation** We report an atypical case of a 75-year male patient presented with left axillary mass and normal initial urological evaluation. Histopathology and immunohistochemistry of the biopsies from the axillary mass confirmed the diagnosis of prostate adenocarcinoma. **Clinical Discussion** Clinical diagnosis of patients presenting with axillary lymphadenopathy may cause diagnostic delay. Careful physical and imaging examinations combined with pathological analysis are essential in the diagnosis of advanced prostate cancer with unusual presentation. **Conclusion** In theory, prostate cancer can cause metastatic spread to any part of the body. However, metastasis to axillary nodes has not been frequently noticed. Our report highlights the importance of considering prostate cancer among differential diagnoses.

**KEYWORDS :** Left axillar lymphadenopathy, Rare, Case report, Metastatic prostate cancer

### INTRODUCTION

Prostate cancer contributes significantly to the overall cancer burden globally. Clinically, prostate cancer patients usually present with obstructive uropathy and malignancy features on digital rectal examination (DRE) as well as elevated serum prostate specific antigen (PSA) [1]. However, some patients can be asymptomatic with an incidental finding on routine DRE.

Usually, prostate cancer spread locally and regionally to lymph nodes and bones [2]. It may also present as metastasis of unknown primary origin to non-regional, extra-skeletal sites rarely encountered in patients with established known prostate cancer [3]. Supra-clavicular, mediastinal, pulmonary and retro-peritoneal metastasis rarely occurs as the initial manifestation of advanced prostate cancer [4]. Pelvic and abdominal retroperitoneal lymph nodes are the most common sites of adenopathy in prostate cancer [5]. With more advanced disease, there can be involvement of peri-aortic, intra-thoracic, supra-clavicular and cervical lymph nodes; and very rarely to axillary lymph nodes [3]. Herein, we report a case of a 75-year-old male with an advanced prostate cancer presenting with left axillary lymphadenopathy as initial presentation and a brief review of the literature.

### 2. Case Presentation

A-75 year-old man presented to our hospital with 3 month history of left axillary mass which started gradually and progressively increasing in size over time. The mass was painless and it was associated with occasional fever, slight weight loss, easy fatigability. The patient denied history of lower urinary tract symptoms, night sweats, coughing, and difficulty in breathing, haematuria or changes in bowel habits. He also reported occasional mild back pain. There was no recent history of trauma to his back, aggravating or relieving factors.

On examination, the patient was fully conscious. His vital signs were: BP = 106/69 mmHg, PR = 98 beats per minute, S<sub>O</sub><sub>2</sub> = 98%, body temperature: 37.8 °C. Firm, non-tender mobile lymph node measuring about 2 × 3 cm was noted on the left

axillary area. The rest of the peripheral lymph nodes were not palpable. DRE and review of other systems were essentially unremarkable.

CECT whole abdomen reveals diffuse, conglomerated, homogenously enhancing masses of lymph nodes in preaortic, paraaortic, aortocaval, precaval, region along with caeliac axis, peripancreatic, prevertebral and along bilateral common iliac vessels, largest lymph node mass measures 5.7x3.5cm. These lymph nodal masses are completely encasing the abdominal aorta, its major branches, and are causing anterior displacement of abdominal aorta. These lymph nodal masses are also compressing inferior vena cava without causing its thrombosis, diffuse ill defined lytic sclerotic lesions are noted in all the visualized vertebrae and bilateral innominate bones.

Liver, gallbladder, pancreas, spleen, both suprarenal glands and both kidney are normal in size, shape, contour and shows normal parenchymal enhancement. Urinary bladder is adequately distended and shows markedly thickened and trabeculated wall. Prostate is enlarged in size, median lobe hypertrophy is seen. No ascites. Stomach, C loop of duodenum, small bowel loop and large bowel loops are adequately distended. Full blood count suggested microcytic hypochromic anemia. So basis of clinical and radiological findings Lymphoma differential diagnosis was made and The axillary lymph node excisional biopsy was performed. Histopathological analysis of the specimen shows partial effacement of lymph nodes architecture and replaced by tumor cells arranged in solid sheets and poorly formed glands. So metastatic adenocarcinoma diagnosis was made, (Fig. 1). Then immunohistochemistry and serum prostatic specific antigen were performed to detect primary

PSA level was 1400.0 ng/mL (0.001-4.000) and Immunohistochemistry shows diffuse and strong (4+) of PSA (Fig. 2) focal, weak (1+) chromogranin and negative ck7, ck20, TTF1, GATA3. SO on the basis of microscopy, ihc and serum PSA level diagnosis of METASTATIC PROSTATIC ADENOCARCINOMA WITH FOCAL NEUROENDOCRINE

DIFFERENTIATION – LEFT AXILLARY LYMPH NODE. Was made.

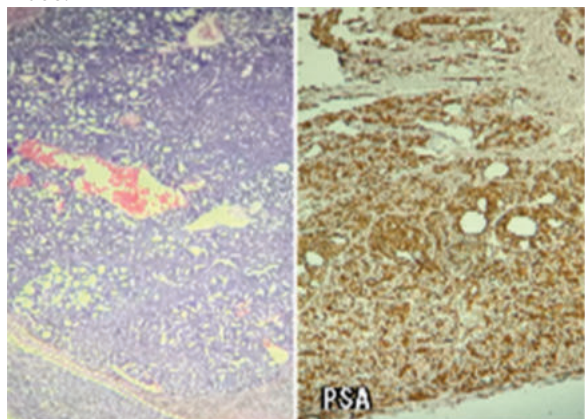


Fig. 1&2

1 - Histopathology of axillary lymph node demonstrating partial effacement of the nodal architecture and replaced by an infiltrating epithelial tumour with solid cords and poorly formed glands, Haematoxylin and Eosin (H&E) 100× original magnification.

2 - Immunohistochemistry – PSA -(Diffuse & strong ) in 4+ neoplastic cells.

### 3. DISCUSSION

Metastatic prostate cancer has a recognizable pattern of spread, most often to regional lymph nodes and the bone [7]. Reports describing atypical metastatic sites such as single or generalized lymphadenopathy with absence of other symptoms of the disease have been documented [8]. Similarly, studies on unusual presentation of prostate cancer mimicking lymphoma on radiological imaging have also been documented [9]. Furthermore, cutaneous, gastric, colonic omentum and peritoneal metastases with or without malignant ascites have been reported [10]. These can occur independently of bone metastasis and response rate to treatment is said to be similar to those with bone metastasis only [10].

Lymphatic metastasis to axillary lymph nodes is a very rare manifestation of prostate cancer [11]. Several reports of prostate cancer with non-regional supra-diaphragmatic lymphatic metastases described no cases of axillary lymph node involvement [8,12,13]. Interestingly, expression of chemokine receptors has been associated with unusual predilection of prostate cancer to lymph nodes [14]. Axillary node metastasis in the absence of classical signs and symptoms of prostate cancer can potentially lead to a considerable diagnostic and therapeutic delay because it may not be considered among differential diagnoses, [15]. Moreover, in contemporary practice many urologists do not routinely perform lymph node dissections in patients with low risk prostate cancer [2]. Therefore, despite of wide range of differential diagnoses, it is important to have a high index of suspicion for metastatic prostate cancer in males presenting with axillary lymphadenopathy with or without signs and symptoms of prostate cancer; as it was the case in our patient.

### 4. CONCLUSION

Although metastatic prostate cancer to axillary nodes is unusual, this case is emphasizing the need for consideration of prostate cancer as an important differential diagnosis in metastatic of unknown primary origin to non regional, extra skeletal site.

**Abbreviations:** ; CTscan, computerized tomography scan; DRE, digital rectal examination; H&E, Hematoxylin and Eosine; PSA, Prostatic Specific Antigen; S<sub>0</sub><sub>2</sub>, oxygen saturation

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