Case Report

Trosier's sign: A Rare Presentation of Metastatic Prostate Cancer

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ABSTRACT

Prostate cancer is the second most common cause of cancer death in men globally. The most common sites of metastasis include the bone, lymph nodes, lungs, liver, pleura, and adrenal glands. A 65-year-old Zambian man presented with neck swelling for 3 months with mild lower urinary tract symptoms. He reported that the swelling was fast growing, painless and with no history of trauma. On examination, Trosier's sign was present. Histology report following a lymph node incision biopsy demonstrated Adenocarcinoma. Prostate specific antigen (PSA) was also positive. A follow up prostate biopsy found adenocarcinoma Gleason 8. This case highlights the need for a high index of suspicion in older, male patients presenting with unexplained neck swelling and no known history of prostatic adenocarcinoma.

INTRODUCTION

Prostate cancer is the second most commonly occurring cancer in men and the fourth most common cancer overall[1]. Prostate cancer is the second most common cause of cancer death in men globally. Classic risk factors for this cancer include older age, African-American ethnicity, and a family history of prostate cancer. Kolonel[2] reported that the incidence rates of prostate cancer steadily increased in the Japanese group with migration from mainland Japan to Hawaii, and the United States mainland in that order based on the ethnic studies. There were 1.3 million new cases of prostate cancer world-wide in 2018. In Africa, it is the sixth leading cause of cancer mortality in males with a relatively higher incidence in less developed nations including the Caribbean (79.8/100,000), South Africa (61.7/100,000) and South America (60.1/100,000)[3]. The most common sites of prostate metastasis include the bone, lymph nodes, lungs, liver, pleura and adrenal glands[4]. Prostate metastasis to the cervical lymph nodes is very rare. [5]. Here, we report the case of a 65-year-old Zambian man with prostate cancer that metastasized to the neck.

Case Report

A 65-year-old Zambian man presented with a left cervical mass of the neck in May, 2021. The swelling is said to have started about 3 months before presenting to the hospital. Prior to this, the patient had no known medical history of malignancy in the head and neck region. Physical examination of the patient was unremarkable except for the findings of an elderly man of medium build, not in respiratory distress, with a left cervical node (Trosier's sign) and no conjunctival pallor.

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Figure 1: Picture showing patient with left Virchow's node (Trosier's sign)

Chest, CNS and Abdominal examinations were normal. Digital Rectal Examination revealed normal anal tone, mildly enlarged prostate, about 40g, firm, regular and median sulcus appreciated. Rectal mucosa was freely mobile over the prostate.

Laboratory baseline data on admission showed; full blood count (FBC)- WBCs-4.5 x $10^9 mm^3$, Platelets 200 x $10^6 mm^3$, Hemoglobin 14.0g/dl; Creatinine 70.5 umol/L; Liver enzymes of AST and ALT, 35 and 45 respectively. Prostate specific antigen (PSA) was greater than 100ng/ml. A Computed tomography (CT) scan to the neck and head showed normal cervical spine and brain structure. However, a trans-rectal Ultrasound guided prostate (TRUS) biopsy revealed Adenocarcinoma (Gleason score of 4+4= 8), with a grade IV category and perineural invasion. A lymph node biopsy also revealed metastatic Adenocarcinoma. These findings were consistent with a diagnosis of metastasis, poorly differentiated carcinoma of the prostate. The patient was treated with Zoladex 10.8mg (a Gonadotropin releasing hormone analogue) every three months and Bicalutamide 100mg PO once a day.

DISCUSSION

The majority of men are diagnosed with prostate cancer at an age older than 65 years, and the vast majority of prostate cancer deaths occur in this older age group. This age range is consistent with the age of our patient in this case report. Metastatic prostate cancer has a poor prognosis and median survival time ranges from 1 to 3 years following diagnosis[6]. Prostate cancer preferentially spreads to the skeleton. More than 80% of men who die from prostate cancer are identified with bone metastases at autopsy[7].

In contrast to most other cancers, prostate cancer predominantly forms osteoblastic metastases. The vertebral column, pelvis, ribs, and proximal long bones are the most common sites of skeletal metastases. Hematogenous, lymphatic, and direct infiltrations are the typical routes of spread[8]. Patients with prostate cancer can present with a mass/ swelling on any part of the vertebral column, pelvis, ribs and proximal long bones.

Metastasis of prostatic carcinoma to the cervical lymph nodes is a very rare occurrence and presents a diagnostic challenge[9]. Cervical lymph node involvement in prostate cancer is rare and almost uniformly associated with widespread metastatic disease in patients over 45 years of age. The reported incidence varies between 0.28 and 0.4% in most series [10,11]. This should be taken into consideration during the work up for an unexplained neck swelling in a patient with advanced prostate cancer, as supportive management will depend on the etiology of the swelling. In patients with suspected cervical swelling, lymph node biopsy must be done to rule out Adenocarcinoma.

Treatment for metastatic prostate cancer is palliative. Androgen deprivation therapy is the mainstay of therapy for metastatic prostate cancer. Several new agents have been introduced for the treatment of metastatic prostate cancer in the past two decades, with excellent disease control and good patient tolerability. If the disease progresses and hormone-refractory metastatic prostate cancer is diagnosed, alternative treatments include chemotherapy, immunotherapy with sipuleucel-T, androgen receptor antagonist drugs such as Enzalutamide, and androgen synthesis inhibitors such as Abiraterone [12].

CONCLUSION

Although rare, it is important to consider the possibility of prostate carcinoma metastasizing to the cervical lymph nodes in patients presenting with unexplained neck swelling and no known history of prostatic adenocarcinoma. It is important to distinguish primary prostate cancer from metastatic lesions, for appropriate management. This can be achieved by determining the histopathologic classification of the tumor and by immunohistochemical staining for PSA.

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Conflict of interest

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