

Case Report

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Case Report

Cervical Lymphadenopathy: Could it be Prostate Cancer?

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Abstract: One of the most prevalent malignancies in males is prostate cancer, which most often metastasizes to the liver, thorax, bone, and local lymph nodes. The current case describes development of cervical lymphadenopathy; which remains a rather rare initial presentation, seen in <0.1% of the patients diagnosed with prostatic carcinoma. The current report describes a 55-year-old man with complaints of lower back pain and swelling on the left side of his neck for the previous two months. Physical examination revealed several swollen cervical lymph nodes that measured 2 cm, were nontender, firm, and adhered to the skin above. A poorly differentiated adenocarcinoma was found during cytological examination of the lymph nodes in the left lower cervical region. Findings from the ensuing Computed Tomography scan pointed to the possibility of spread prostatic cancer. PSA values were determined to be 364.762 ng/ml after additional analysis. The patient was then planned for hormone ablation therapy as per Institute protocol, in view of metastatic prostate cancer. 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 has been distant lymph node metastases.

Keywords: Supraclavicular lymphadenopathy; Metastatic prostate cancer

Introduction

Prostate cancer (CaP) is a leading oncological diagnosis amongst men, with the bone, regional lymph nodes, liver and thorax being common metastatic sites for CaP [1]. Though metastatic CaP is commonly talked about in association with bone metastasis, the possibility of atypical metastasis should not be overlooked [2], and provide an interesting diagnostic challenge to the treating urologist. This includes development of cervical lymphadenopathy; which remains a rather rare initial presentation, and is seen in <0.1% of the patients diagnosed with prostatic carcinoma [3].

Case Report

A 55 year old male presented in the orthopaedic outpatient department with chief complaints of lower back pain and swelling in the left side of the neck for past 2 months. Physical examination revealed multiple enlarged cervical lymph nodes, 2 cm in size, nontender, hard and fixed to the overlying skin. Aspiration cytology of left lower cervical lymph nodes revealed poorly differentiated adenocarcinoma. In search of a possible primary for the cervical metastasis, CT (Computed Tomography) scan of the thorax and abdomen was done. The scan reported moderate

prostatomegaly, perirectal and retroperitoneal lymphadenopathy, lymph nodal mass along the left external iliac vessels encasing the left distal ureter with upstream moderate hydronephrosis, mediastinal lymphadenopathy and sclerotic lesions involving the dorsolumbar vertebrae and the pelvic bones suggestive of metastasis. On further evaluation, PSA levels were found to be 364.8 ng/ml.

Patient was then planned for MRI of prostate gland to evaluate for suspected prostatic carcinoma. The MR scan showed 2.8 x 3.8 x 4 cms of prostate and an ill marginated T2 hypointense mass involving the peripheral gland on the left side in the region of prostatic apex with extraprostatic extension (PIRADS V). TRUS guided prostate biopsy was planned and revealed poorly differentiated adenocarcinoma of the prostate. The patient is now being planned for hormone ablation therapy as per Institute protocol, in view of metastatic prostate cancer.

Discussion

Prostate cancer should be always 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 lower urinary tract symptoms. As stated above, cervical lymph node involvement as an isolated presenting complaint is seen in <0.1% of individuals with prostatic cancer [3]. Since cancers presenting with cervical lymphadenopathy are usually acquired from malignancies involving the aerodigestive tract [2,4], much of these patients first visit the Medicine or Otorhinolaryngology departments; eventually prolonging their evaluation before appropriate oncological therapy is initiated.

There have been two theories for why CaP may spread to the supraclavicular nodes. Batson *et al* suggested that head and neck metastases from CaP occur due to hematogenous spread through the vertebral venous system (Batson's plexus) [5]. However, hematogenous dissemination fails to delineate the propensity of CaP to metastasize to the left cervical region, while right side involvement remains fairly unusual [5]. The more plausible theory hence, is of a lymphatic spread to cervical lymph nodes. Prostate is richly supplied by lymphatics which drain into the obturator, hypogastric and presacral nodes; and from these to the iliac and paraaortic nodes, before subsequently draining into the thoracic duct [6]. The lymphatic drainage from prostate then enters the systemic blood circulation via left subclavian vein, that allows tumor cells to lodge into left cervical nodes, owing to the proximity of these nodes to the point-of-entry of thoracic duct into the left subclavian vein [7].

Cervical lymph node involvement in prostate cancer is almost uniformly associated with a widespread metastatic disease and is thus, a poor prognostic factor in patients with prostate cancer. For such patients, the survival rates are significantly reduced. Interestingly, owing to the underlying widespread metastatic disease, cervical lymphadenopathy has a rather strong association with PSA levels beyond 100 ng/ml; with 26 / 29 patients (89.6%) satisfying this biochemical finding [8]. Even in the current case, our patient had a PSA level of 364.8 ng/ml at time of presentation. Such an association suggests at least one low-cost solution to the diagnostic challenge posed by this unusual clinical presentation for CaP; i.e. – an opportunistic PSA testing in all elderly males presenting with supraclavicular lymphadenopathy of unknown etiology. Of course; in a surgical / urological clinic, this PSA assay should be coupled with DRE (digital rectal examination) as a part of the initial physical evaluation of such patients.

While hormonal treatment has come a long way as the primary management option for metastatic prostate cancer; the prognosis of such cases, particularly in the setting of distant lymph node metastasis, remains dismal [9]. Reporting such cases brings to light the importance of timely detection of malignancies, particularly those such as Prostate cancer, which are slow growing and have well-established screening tools (such as PSA assays) and treatment protocols [10].

Conclusions

Though unusual, an enlarged cervical lymph node may be the initial presentation of metastatic prostate cancer. An opportunistic PSA testing at the initial visit for all elderly males presenting with supraclavicular lymphadenopathy of unknown etiology may help in avoiding delays in diagnosis

and subsequent treatment for such patients. Individuals should be advised to adhere strictly to advised screening programs, so as to allow for early detection of malignancies; particularly ones such as prostate cancer that do not render a dismal prognosis if detected well in time.

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Conflict of interest: The authors declare that they have no conflict of interest.

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