case report

Generalized lymphadenopathy: physical examination revisited

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We report an unusual case of prostatic carcinoma in a 47-year-old male that presented with generalized lymphadenopathy. He initially presented with metastatic lymphadenopathy. He underwent a battery of investigations to find the primary site of origin but to no avail. Thereafter, a complete and diligent physical examination revealed a hard and irregular normal-sized prostrate which was later confirmed as the primary site of tumor. This case report reiterates the significance of a precise and complete physical examination that may prove vital in avoiding superfluous expensive investigations and a delay in diagnosis.

Technical advancement in imaging modalities has forced the physical examination to take the back seat in the management of patients. A diligent physical examination not only is important when these advanced imaging modalities are unavailable, unaffordable, or inconvenient, but also guides a clinician in using his armamentarium of investigations in a judicious, appropriate, and cost-effective manner. We present a case of metastatic carcinoma of prostate with generalized lymphadenopathy, where an incomplete physical examination at the earlier stage of workup led to a number of unnecessary futile investigations and a delay in the diagnosis.

CASE

A 47-year-old male was referred to us for evaluation as a patient with metastatic lymphadenopathy with an unknown primary site. The following observations were recorded by previous attending clinicians: No family history of malignancy, the presence of generalized lymphadenopathy involving the cervical, axillary, external iliac, and inguinal region (**Figure 1**), left lower limb edema, no respiratory, urinary, or bowel complaints; upper gastrointestinal endoscopy within normal limits; eye, nose, and throat evaluation was unremarkable; contrast-enhanced CT scan of the neck, thorax, and abdomen showed multiple enlarged lymph nodes in the left supraclavicular region, posterior triangle of the neck, and the mediatstinal, retroperitoneal, and the iliac region with hepatomegaly, and left hydroureteronephrosis (due to compression of ureter by lymph node mass); cervical lymph node biopsy included metastatic adenocarcinoma; bone marrow biopsy showed metastatic deposits; whole body positron emmision tomographic/CT scan showed malignant disease involving the lymph nodes (left cervical, superior mediastinal, abdominopelvic, and inguinal) and skeletal system.

When he presented to us, we decided to evaluate him without considering previous reports. The digital rectal examination done as part of a complete physical examination revealed a hard irregular normal-sized prostate with a mobile overlying rectal mucosa. Serum prostate-specific antigen was 1165 ng/mL. A sextant prostatic biopsy demonstrated adenocarcinoma prostate, Gleason score (4+3). A final diagnosis of metastatic adenocarcinoma of the prostate with generalized lymphadenopathy was made.

The patient underwent a bilateral subcapsular orchidectomy followed by an adjuvant hormonal therapy (bicalutamide 50 mg once a day). The patient was asymptomatic after 15 months of follow-up and resumed daily activities.

DISCUSSION

Prostatic carcinoma (PC) usually involves regional lymph nodes as part of lymphatic metastasis. Cervical

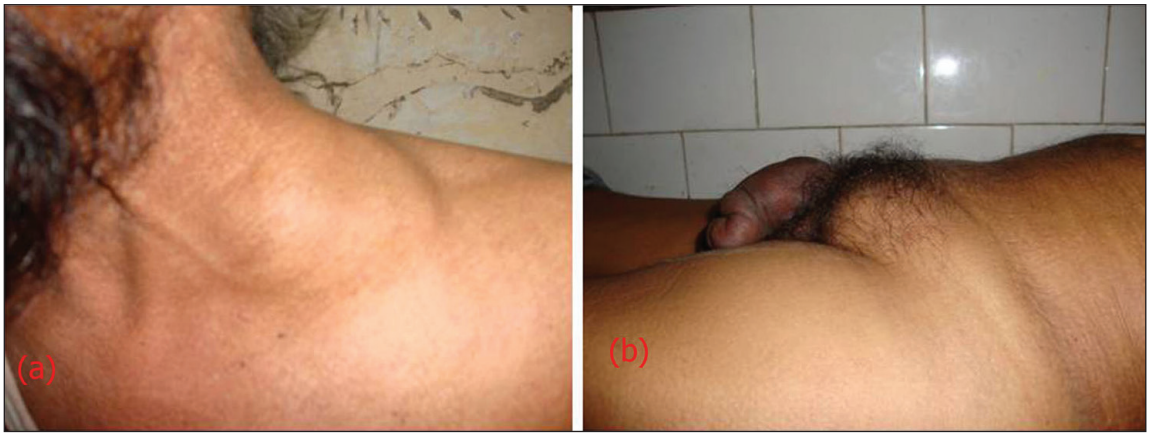

Figure 1. Clinical photograph of the patient showing A) left supraclavicular lymphadenopathy and B) left lower limb edema, external iliac lymphadenopathy.

and supraclavicular lymphadenopathy as an initial presentation of PC is rare. Butler et al[1] presented 19 patients with metastatic PC who had supraclavicular lymphadenopathy as an initial manifestation. Abnormal digital rectal examination findings were present in 42% of these patients. Wang et al described 3 cases of metastatic PC presenting as supraclavicular lymphadenopathy.[2] All of these patients had a hard, enlarged, and uneven prostate on a digital rectal examination. They concluded that PC should always be considered in the differential diagnosis of elderly men with cervical lymphadenopathy even in the absence of lower urinary tract symptoms. Ozgür et al[3] described a 75-year-old male who had right cervical lymphadenopathy as initial manifestation of PC. Ahamed et al[4] also described a similar case of a 74-year-old male who had left supraclavicular metastatic lymphadenopathy of prostatic origin. They also emphasized that a digital rectal examination and a serum prostate-specific antigen level be included in the initial investigation process of male patients with persistent supraclavicular lymphadenopathy. Generalized lymphadenopathy may also be an initial manifestation of PC on rare occasions. Heresi et al[5] reported only 9 patients with PC presenting with generalized lymphadenopathy after an extensive MEDLINE database search. Patients with metastatic lymphadenopathy of prostatic origin pose a diagnostic challenge as they may not be subjected to a digital rectal examination as part of their physical examination, a procedure that could clinch the diagnosis. Tohfe et al[6] emphasized the importance of including prostate cancer in the differential diagnosis of men with adenocarcinoma of unknown origin while reporting an unusual metastatic pattern of prostatic adenocarcinoma.

Our patient presented with generalized lymphadenopathy. Fine-needle aspiration cytology showed metastatic adenocarcinoma. Attending clinicians then subjected him to a number of investigations that contributed nothing to the diagnosis, but added expenditure to the patient and delayed the diagnosis. A simple digital rectal examination at our institution held the key to diagnosis. How true is the old medical aphorism: "If you don't put your finger in it, you put your foot in it." Today, the importance of an accurate physical examination is largely forgotten. Clinicians face this dilemma of doing the physical examination that, they presume, will prove to be fruitless in the light of the advanced technology of imaging. Young residents wonder why they should do a clinical examination for a lump in the abdomen, as a CT scan done as a part of workup of this patient will reveal the site, nature, and extent of the lump. They remain bewildered about the importance of doing time-consuming brain storming for the differential diagnosis after the clinical examination. Uncertainty remains in the minds of clinicians about the value added by the particular aspects of physical examination to patient care. An adequate and accurate physical examination leads to the proper utilization of these modern imaging modalities and avoids throwing darts (investigations) in a darkened room and hoping to hit the bull's-eye (the diagnosis). Moreover, one must understand that these machines and gadgets are not universally present and definitely increase the cost of treatment. This seems especially important in developing countries where there are scarce health resources. The case highlights the importance of a thorough clinical examination in diagnosis. Errors in early evaluation of patient may cost dearly, and may not be rectified even after multiple expensive investigations.

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