Brief report

A refugee with a supraclavicular lymph node
An uncommon first presentation of carcinoma of the prostate

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Abstract

In this case report, we describe a patient with an uncommon presentation of disseminated prostate carcinoma. Initial presentation could mimic tuberculosis or hematological malignancy. The literature is reviewed for this kind of presentation. Furthermore, the value of immuno-histochemical stains in relation to prostate carcinoma is discussed. © 2001 Elsevier Science B.V. All rights reserved.

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Case report

On screening for tuberculosis, a 70-years-old refugee from Sri Lanka presented with a 2-cm in diameter, firm and mobile supraclavicular lymph node on physical examination and a mediastinal mass on chest X-ray. He had a 1-year history of weight loss but he did not suffer from fever or night sweats. He had no pulmonary or other complaints. Except for the leftsided supraclavicular lymph node, a firm prostate was felt on physical examination.

He had a positive tuberculin skin test of 20 mm. Laboratory investigations revealed a slightly elevated lactate dehydrogenase and alkaline phosphatase. Prostate-specific antigen was increased (1066 μg/l).

Fine needle aspiration (FNA) of the supraclavicular lymph node revealed large cell carcinoma (Fig. 1). On bronchoscopy, no endobronchial tumor was seen but FNA of the mediastinal lymph nodes demonstrated identical malignant cells compared with the supraclavicular lymph node. Furthermore, lymphangitis carcinomatosa was seen in the central bronchial biopsy specimens. Specific stains (Fig. 2) revealed prostate-specific acid phosphatase (PSAP) positive tumor cells. Specific cultures of lymph node and bronchial aspirate remained negative for mycobacterium.

On CT-scan of the thorax and abdomen (Fig. 3a and b), extensive mediastinal and bilateral hilar involvement was seen. Furthermore, massive retroperitoneal and intraabdominal lymphadenopathy with outflow obstruction of the left kidney was seen. Focal sclerosis of several thoracic vertebrae, suggestive for metastases, was also noted. Bone scintigraphy revealed several hotspots in the thoracic...
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Fig. 1. Fine needle aspiration of supraclavicular lymph node with large cell carcinoma.

and lumbar vertebrae, pelvis and scapulae confirming several osseous lesions compatible with metastases.

Concluding, although this patient initially presented with a high suspicion of mycobacterial disease, he was diagnosed with disseminated prostate carcinoma.

After 1 month of treatment with cyproteron and leuprolelin, the clinical condition of the patient was markedly improved and the supraclavicular lymph node was no longer palpable.

Discussion

This patient initially presented with a high suspicion of tuberculous infection. Extensive cultures could not confirm this diagnosis. These findings again demonstrate the limited diagnostic value of a positive tuberculin skin test in patients originating from tuberculosis endemic areas.

Only a few cases of supraclavicular and mediastinal metastases of prostate carcinoma are described. To our knowledge, we describe the first case of mediastinal metastases without radiological evidence of pulmonary metastases. Furthermore, the extensive lymphangitis carcinomatosa without pleural fluid and without pulmonary metastasis is a unique finding in prostate carcinoma. The intraabdominal lymphadenopathy is impressive and resembles hematopoietic malignancy.

In a large series of mediastinal metastasis only 6% appeared to originate from extra-thoracic tumors [1]. Of these 6% only 1% originated from the prostate. All of these patients (four) had a recent history of surgery of the prostate, indicating prostate-related symptoms. In another series, Cho et al. [2] describe 26 cases of supradiaphragmatic lymph nodes in prostate carcinoma. Of these 26 cases, 15 presented with supraclavicular lymph nodes and only one with mediastinal metastasis. A large study from Lindell et al. [3] demonstrated 5.2% of patients with prostate carcinoma to suffer from intrathoracic metastases. Mediastinal adenopathy was rare (0.6%) and lymphatic pulmonary spread was even more uncommon (0.2%). Mediastinal spread of prostate carcinoma has been mentioned before in case reports.
Fig. 2. Central bronchial biopsy specimens with lymphangitis carcinomatosa. Specific stains revealed prostate-specific acid phosphatase positive tumor cells.

[4–6]. It has been suggested that these masses can mimic malignant lymphoma [5,7] and radiographic appearance in this case report supports this notion. Recently, a large study [8] with 1385 patients with metastatic prostate carcinoma demonstrated that more than 90% of patients do suffer from osseous metastases. Nearly 50% of patients also complain of bone pain. Less than 10% of patients had, not further specified, distant nodes.

A urologic history or symptoms in combination with an elevated serum PSA in elderly men is suggestive for prostate carcinoma. FNA cytology yields sufficient diagnostic accuracy compared with histology for carcinoma of the prostate and its metastasis [9].

Although conflicting data is presented in two case reports, it is clear that positive immunohistochemical stains with PSA could also indicate a neoplasm of the salivary glands in men with no signs of primary prostatic carcinoma [10,11]. The value of serum PSA and stains for PSAP remains unclear in salivary gland carcinoma [10,11]. Conversely, PSA production has also been demonstrated in normal, hyperplastic and malignant female breast tissue [12]. Furthermore, PSA has been demonstrated in body fluids, e.g. milk and amniotic fluid [13] and pancreas [14].

**Conclusion**

A mediastinal mass with supraclavicular lymph nodes in a patient from a pandemic area for tuberculosis should always be biopsied. Appropriate histologic and microbiologic examination should always be performed simultaneously. Furthermore, in male patients elder than 50 years with supraclavicular malignant lymph nodes of unknown origin, a thorough investigation of the prostate is recommended, even in the absence of urologic complaints.
Fig. 3. (a) CT-scan of the thorax: with extensive mediastinal and bilateral hilar involvement. (b) CT-scan of the abdomen: massive retroperitoneal and intraabdominal lymphadenopathy with outflow obstruction of the left kidney.

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References