Neck mass as the initial sign of an unsuspected prostatic carcinoma

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ABSTRACT

Prostate cancer is one of the most common malignancies in men. It often metastasizes to the regional lymph nodes, but neck lymph node involvement at the initial clinical presentation is rare. In this paper, we report a 74-year-old man who initially presented with an enlarged supraclavicular lymph node due to metastatic prostate cancer, which was confirmed by immunohistochemistry.

Keywords: Prostate cancer, Immunohistochemistry, Neck lymph node metastasis

INTRODUCTION

Prostate cancer is one of the most common malignancies in men. In Taiwan, prostate cancer is the sixth most common cancer and the seventh leading cause of cancer-related death in men (1). Prostate cancer commonly spreads through direct invasion to the pelvic organs or vertebral bodies. Supraclavicular lymph node metastasis is uncommon in patients with prostate cancer (2). The incidence of prostate cancer metastatic to the supraclavicular lymph nodes is rare, with a reported rate of approximately 0.3% (3). In this study, we report a 74-year-old man who initially presented with an enlarged supraclavicular lymph node due to metastatic prostate cancer.

CASE REPORT

A 74-year-old man initially presented with an enlarged left cervical lymph node (painless) and anorexia (a weight loss period of 1 month). His past medical history was unremarkable. He denied any other subjective complaints, including difficulty in swallowing or breathing, and had no urinary symptoms. On physical examination, a nontender, firm mass measuring 3 cm at the largest diameter

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was present in the left supraclavicular region. The heart and lungs were normal. An abdominal examination was unremarkable. In addition, the pubic region, groin region, scrotum, and testis were unremarkable. A digital rectal examination was not performed at that time. His blood pressure, pulse rate, and respiratory rate were normal. Furthermore, a routine hematological and biochemical laboratory examination was unremarkable. An excisional biopsy of the neck lymph node was performed. It showed the lymph node architecture infiltrated by epithelioid neoplastic cells arranged in acinar, fused glandular, and cribriform patterns. The neoplastic cells were characterized by vesicular nuclei, prominent nucleoli, and a monotonous shape (Fig 1). In immunostains, the neoplastic cells were prostate-specific antigen (PSA) positive, as well as cytokeratin 7 (CK7) negative, cytokeratin 20 (CK20) negative, or thyroid transcription factor-1 (TTF-1) negative (Fig 2). On the basis of the morphology and immunoprofiles, metastatic adenocarcinoma of the prostate primary was considered.

Following the diagnosis, he was confirmed to have elevated serum PSA levels (4067ng/mL). Subsequently, prostate adenocarcinoma was confirmed with a prostate needle biopsy.

**DISCUSSION**

Prostate cancer commonly spreads through direct invasion to the pelvic organs or vertebral bodies(2), followed by the lungs, bladder, liver, adrenal glands, and kidneys. Lymphatic dissemination frequently involves the regional lymph nodes of the pelvic cavity and retroperitoneum, followed by the para-aortic lymph nodes(4). The reported incidence of metastasis to the supraclavicular lymph nodes in patients with prostate cancer is 0.3%(3). Prostate cancer initially presenting as supraclavicular lymphadenopathy is increasingly reported as an uncommon presentation of the disease(5).

Most cervical lymphadenopathy cases arise from primary cancer of the skin, salivary glands, thyroid, or upper gastrointestinal tract, with oc-
casional metastasis from the lungs, kidneys, or breast. However, a few cases of cervical lymphadenopathy with an unknown primary tumor after a whole-body survey have occurred. In such cases, histomorphology and immunohistochemical stains can help identify the tumor origin. When cervical lymphadenopathy shows metastatic adenocarcinoma features, a tumor in the head and neck, salivary glands, lungs, breast, or upper gastrointestinal tract should be considered first. In most cases, prostate cancer is not considered in the differential diagnosis of supraclavicular lymphadenopathy at the initial presentation.[6]. Positivity for PSA staining could be helpful in determining a diagnosis of prostate carcinoma, but its specificity not 100%. Some carcinoma of the urinary tract, salivary gland origin, and breast can be positive for PSA stains. A prostate biopsy and serum PSA are suggested for establishing a definite diagnosis of prostate cancer in patients with metastatic lesions of the neck positive for PSA staining.[4]. In our case, the final diagnosis of the prostate adenocarcinoma was confirmed by a prostate biopsy.

Prostate cancer should be considered in the differential diagnosis of elderly men with cervical lymphadenopathy, even in the absence of lower urinary tract symptoms.[2]. Several case reports illustrate the need for a digital rectal exam and measurement of serum PSA in adult men with persistent left cervical lymphadenopathy. These examinations are relatively easy and noninvasive and are important to establish a timely diagnosis of prostate cancers.[2,4,6,7].

The prognosis of prostate adenocarcinoma that has metastasized to the head and neck can be relatively good, with the possibility of prolonged survival after appropriate diagnosis and treatment.[4].

**REFERENCE**


未預期的攝護腺癌：以頸部腫塊作為初始體徵

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中文摘要

攝護腺癌是男性最常見的惡性腫瘤之一，常轉移到鄰近的淋巴結，但以頸部淋巴結作為初始臨床表現則是相當罕見。在此，我們報告一名 74 歲的男性以鎖骨上淋巴結腫大作為初始表徵，通過免疫組織化學染色證實由攝護腺癌轉移而來。

關鍵字：攝護腺癌，免疫組織化學染色，頸部淋巴結轉移

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