

Section: CLINICAL CASE REPORT

Abstract: CCR-06

Anti-Hu-positive paraneoplastic polyradiculoneuropathy in a patient with acinar adenocarcinoma of the prostate

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INTRODUCTION: Paraneoplastic neurologic syndromes with neuropathy (PNSN) are rare immune-mediated disorders present in approximately 1% of patients with cancer. Their manifestations in prostate cancer are varied and have been addressed by few studies. **CASE REPORT:** F.A.P., a 40-year-old man, presented to the emergency department with a five-month history of low back pain that had worsened during the previous month and was associated with paresthesia in the feet and progressive lower-limb weakness refractory to nonsteroidal anti-inflammatory drugs and an opioid. For one week before hospitalization, he had been unable to stand. He denied trauma and reported loss of appetite and a 20-kg weight loss over three months. He was hospitalized for investigation and pain control. He had a 10-pack-year smoking history, consumed alcohol, and had no other comorbidities. On examination, he was thin and pale, with impaired temperature, vibratory, and tactile sensation in the lower limbs; muscle strength was grade I in the right lower limb and grade II in the left. Tests showed iron-deficiency anemia, normal vitamin B12, folate, kidney function, and electrolyte levels, and elevated alkaline phosphatase. Serum and cerebrospinal fluid serologies were negative for syphilis, Epstein-Barr virus, HIV, HTLV, and hepatitis B and C. Cerebrospinal fluid was acellular, with elevated protein (increased gamma fraction) and low glucose. Lumbar spine magnetic resonance imaging (MRI) showed no nerve-root compression but did reveal multiple lytic and blastic vertebral lesions. Multiple myeloma markers were negative, PSA was >1,500, and prostate MRI was PI-RADS 3. Transrectal biopsy showed usual acinar adenocarcinoma of the prostate, Gleason 7 (3+4). Serum anti-Hu antibodies were positive. Treatment with leuprorelin, docetaxel, intrathecal morphine, and systemic corticosteroids improved sensorimotor function and reduced pain. The patient was discharged walking and referred for oncologic follow-up. **DISCUSSION:** PNSN is uncommon, especially in prostate cancer. It is believed to result from the release of hormonal peptides, biogenic amines, and tumor factors. It may stabilize or regress with cancer treatment and is associated with onconeural antigens such as anti-Hu. Autoantibody measurement, although not required, supports the diagnosis. This case highlights the need for further investigation of the pathophysiologic mechanisms and for standardized diagnostic and therapeutic approaches to PNSN in the context of prostate cancer.

KEYWORDS: Paraneoplastic neuropathy; Polyradiculoneuropathy; Prostatic neoplasms; Autoantibodies.