

Case Report

Bicytopenia Revealing an Intramedullary Spinal Cord Metastatic Prostatic Carcinoma

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Abstract

Usually revealed by lower urinary tract symptoms, prostate neoplasms are the most frequent urological cancer.

The patient was a 70-year-old man being explored for bicytopenia in the hematology department: anemia and bicytopenia with no urinary symptoms in the first plan.

Bone marrow biopsy was done and the histological and immunohistochemical concluded in an intramedullary spinal cord metastasis of an undifferentiated prostatic carcinoma.

We have reviewed the literature one other case of intramedullary metastasis of prostatic cancer was detected but the main symptoms were neurological and the patient was already diagnosed with his cancer.

Introduction

Usually revealed by lower urinary tract symptoms, prostate neoplasms are the most frequent urological cancer.

Prostate cancer is a significantly increasing disease worldwide, especially in developed countries [1]. We report an unusual case of metastatic prostate cancer revealed by bicytopenia.

Case report

A 70-year-old man was being explored in the hematology department for bicytopenia (anemia, thrombocytopenia) when he developed kidney failure, kidney and bladder ultrasound showed bilateral ureteropyelocaliceal dilatation and distension of the bladder.

Urinary drainage via a bladder catheter was done with good clinical and biological evolution.

The digital rectal examination revealed a hard nodular 70 gr prostate.

The value of the Prostate Specific Antigen was 150 ng/ml.

The patient had no neurologic symptoms and the neurological physical exam was normal.

More Information

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Submitted: May 21, 2024

Approved: May 29, 2024

Published: May 30, 2024

How to cite this article: Marrak M, Chaachou A, Hedhli H, Cherni N, Dridi M, et al. Bicytopenia Revealing an Intramedullary Spinal Cord Metastatic Prostatic Carcinoma. Arch Case Rep. 2024; 8: 058-059.

DOI: 10.29328/journal.acr.1001096

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Keywords: Prostate; Cancer; Metastases; Intramedullary spinal cord

Abbreviations: ISCM: Intramedullary Spinal Cord Metastasis; PSA: Prostate-Specific Antigen; SRS: Stereotactic Radiosurgery



Prostatic biopsy was not possible because of the low blood platelet count (35000 per μL).

Bone marrow biopsy was done and the histological and immunohistochemical concluded in an intramedullary metastasis of an undifferentiated prostatic carcinoma (Figures 1,2).

Given the age, the bone marrow cell density was significantly low.

Cellular hypoplasia was due to a massive infiltration

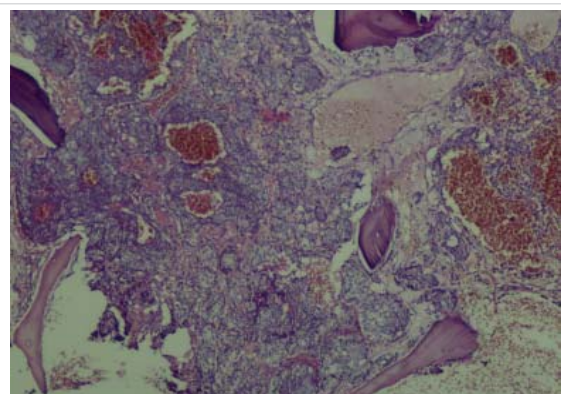
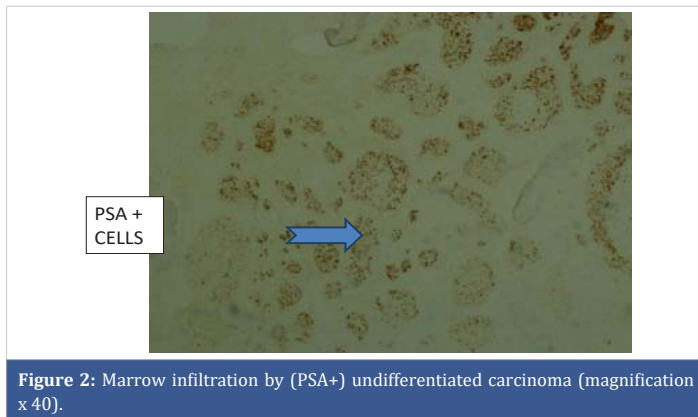


Figure 1: Hematoxylin and eosin stained section (magnification x 10). Cubic and columnar cells are arranged in cords and trabeculae.



by a seemingly carcinomatous tumor made of cubic and columnar cells arranged in cords and trabeculae. These cells showed an abundant eosinophilic cytoplasm and irregular hyperchromatic nuclei, sometimes featuring conspicuous nucleoli.

Marrow infiltration by (PSA+) undifferentiated carcinoma suggests in the first place a prostatic origin.

A bone scan was done and showed several bone metastases we started a hormone therapy, and a transurethral resection of the prostate was programmed.

Discussion

Prostatic cancer is generally revealed by low urinary tract symptoms prostatic, hematuria, and bone pains.

Although vertebral and other epidural metastases are common, intradural metastases are rare. ISCMs represent only 0.9% to 2.1% of autopsy cases in patients with cancer and only 5% of these are identified as antemortem [2].

Usually, the neurological symptoms are in the first plan but in our case, the main symptoms were related to the bicytopenia (asthenia and pallor) with no neurological deficits.

The treatment options include conventional radiation, SRS, surgery, steroids, and chemotherapy but there are no guidelines for this ISCM in the literature [3].

Several authors have described it as a primary treatment for ISCMs. Parikh and Heron [4] described a single patient with a renal cell metastasis treated with CyberKnifeW, at a 15Gy marginal dose in three fractions.

Their patient had no recurrence in the 26 months of follow-up.

One other case reported a similar intramedullary spine cord metastasis described by Robert E Lieberman, et al. [3] but the neurological symptoms were in the first plan and their patient underwent decompression and an excisional biopsy, and the patient was already treated for a Gleason grade 4 + 3 prostate adenocarcinoma who had previously undergone

a prostatectomy, androgen blockade and transurethral debulking.

In our case, it is the ISCMs that have revealed prostatic carcinoma by exploring that bicytopenia.

Conclusion

Metastases to the intramedullary spinal cord are rare and typically occur late in the course of the disease.

Prostatic cancer remains asymptomatic for a long time and ISCM symptoms enabled the diagnosis in our case.

Statement of ethics

Written informed consent was obtained from the patient for publication of the details of his medical case and any accompanying images.

Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Acknowledgement

We are grateful to all the staff of the Urology and Pathology Department of our hospital who contributed to this project.

Author's contributions

Conception and design: Mehdi MARRAK.

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Critical revision of the manuscript: Samir Ghozzi.

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