

Oncology

Giant prostatic adenocarcinoma revealed by bilateral edema of the lower limbs

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A B S T R A C T

Adenocarcinoma of the prostate affects up to 70 % of men over 80 and is the second leading cause of cancer related death in men. We reported an unusual case of a giant prostatic adenocarcinoma compressing bilaterally the 2 external and internal iliac veins that was revealed by a bilateral edema of the lower limbs after histological confirmation the patient was treated by radiotherapy and hormone therapy with a clinical amelioration.

1. Introduction

Prostate neoplasms, often indicated by lower urinary tract symptoms, are the most common urological cancers. Prostate adenocarcinoma affects up to 70 % of men over 80 and is the second leading cause of cancer-related death in men.¹

2. Case presentation

We report the case of a 57-year-old man with diabetes and high blood pressure who presented to the emergency department with gradually developing bilateral lower limb edema. Physical examination showed normal blood pressure, normal cardiopulmonary auscultation, painless bladder distention, and soft, white, palpebral edema of the lower limbs.

Digital rectal examination revealed a large, nodular prostate. Renal function was normal, urinary drainage was performed with a Foley catheter, and the patient was admitted to the internal medicine department for etiological investigation of the edema. An abdominal CT scan revealed a massive prostatic hypertrophy estimated at 1000 g, compressing both the external and internal iliac veins without any lymph nodes or metastatic lesions in the thoracic and abdominal regions (Fig. 1). The PSA level was 100 ng/ml.

A prostate biopsy (twelve cores) was performed, and histological examination confirmed a prostate adenocarcinoma with a Gleason score of 9 (4 + 5) (Fig. 2). The multidisciplinary team decided to initiate androgen deprivation therapy via subcutaneous injection every three months and local radiotherapy and a preventive long-term anticoagulation.

After nine months of treatment, the edema progressively regressed,

and ultrasounds showed a reduction in prostate volume. Lower urinary tract symptoms were managed with alpha-blocker therapy after the removal of the Foley catheter.

3. Discussion

Prostate cancer is the most common male cancer worldwide and the second leading cause of cancer death in men, following lung cancer. Its incidence is increasing by 2–3% each year. In the USA, it is the most common type of cancer in men, with nearly 250,000 new cases diagnosed annually.¹ Metastatic prostate cancer is routinely suspected by the detection of a lumpy prostate on digital rectal examination or elevated PSA levels in blood tests. The diagnosis is confirmed through histological examination of prostate biopsy tissue samples.² Metastatic lesions are primarily assessed by pelvic MRI and bone scans. However, metastatic prostate cancer presenting with significant lower limb edema due to bilateral compression of the external iliac veins is an unusual presentation.

Unilateral and bilateral leg edema is not uncommon in connection with malignant diseases of the urogenital tract. During prostate carcinoma treatment involving surgical exposure and lymphadenectomy, as well as percutaneous radiotherapy, lymphedema has been observed in up to 45 % of patients following percutaneous radiotherapy.³ This is due to the destruction of lymphatic vessels in the inguinal and pelvic areas, leading to lymphatic drainage disorders. Apart from the effects of irradiation and surgery on lymph node areas, lower limb edema may result from deep vein thrombosis. Cancer patients may develop varying degrees of coagulopathy: tumor cells can synthesize procoagulants such as tissue factor and blood coagulation factor X activators, which can lead to

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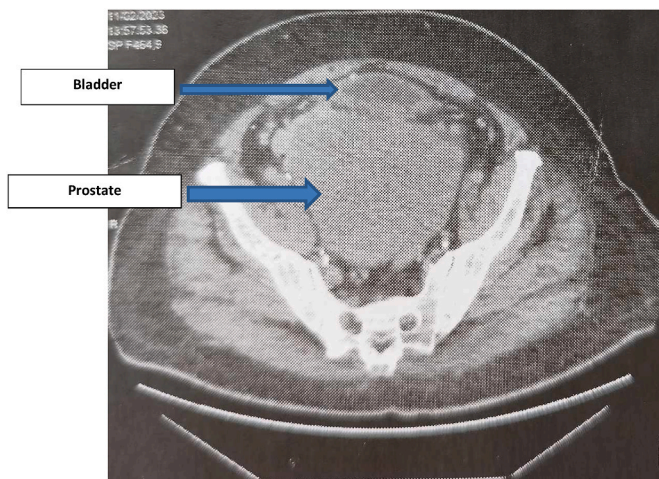


Fig. 1. a giant prostatic hypertrophy estimated to 1000 gr.

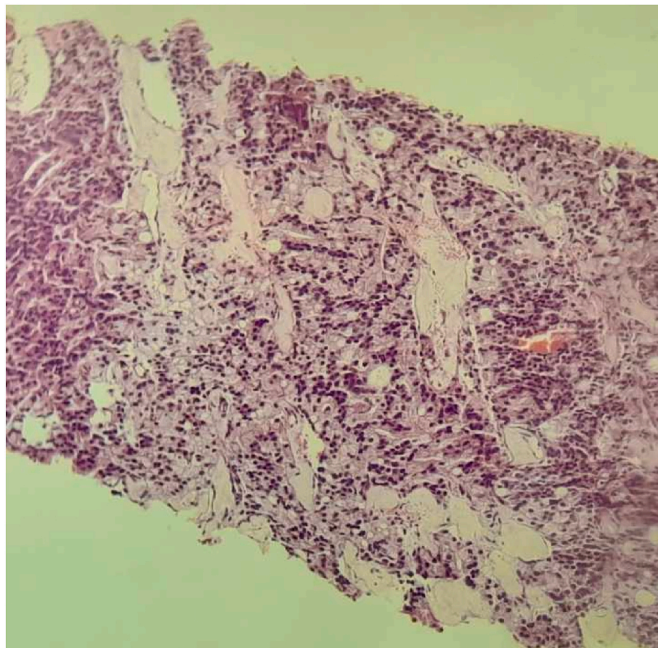


Fig. 2. prostatic carcinomatous proliferation.

thrombophlebitis, pulmonary emboli, thrombotic endocarditis, arterial

emboli, and hemorrhagic events.⁴

Management of these patients is primarily based on therapeutic anticoagulation, which prevents thrombus progression and reduces the risk of recurrence. Despite therapeutic anticoagulation, the risks of thromboembolism recurrence and bleeding are increased in oncology patients, complicating their management. Low molecular weight heparins have been the treatment of choice in recent decades due to their effectiveness compared to vitamin K antagonists, with a similar tolerance profile. Recently, several studies have evaluated direct oral anticoagulants, which are easier to use, in cancer-associated thrombosis. Compared to low molecular weight heparins, direct oral anticoagulants have similar efficacy regarding thromboembolism recurrence but an increased risk of bleeding, especially in gastrointestinal and urogenital cancers.⁵ In addition to therapeutic anticoagulation, medical compression stockings can help reduce pain and swelling.

4. Conclusion

Due to its various metastasis sites, prostate cancer can present with a wide range of symptoms. In our case, the giant prostate adenocarcinoma posed both a diagnostic and therapeutic challenge.

CRediT authorship contribution statement

Mehdi Marrak: Conceptualization, Data curation. **Yassine Ouanes:** Data curation. **Jihed Karmous:** Formal analysis. **Kays Chaker:** Methodology. **Mokhtar Bibi:** Supervision. **Yassine Nouira:** Validation.

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