Urology Case Reports 51 (2023) 102594

Contents lists available at ScienceDirect

Urology Case Reports

journal homepage: www.elsevier.com/locate/eucr

Oncology

Primary diffuse large B-Cell lymphoma of the female urethra: A case report

Abdelmounim Boughaleb [a,*], Hicham El Boté [b], Jihad Lakssir [a], Omar Bellouki [a], Ilyas Soufiani [a]

[a] Department of Urology A, Ibn Sina University Hospital of Rabat, Morocco
[b] Sultan Moulay Slimane University, Department of Anatomy, Faculty of Medicine and Pharmacy, Beni Mellal, Morocco

ARTICLE INFO

Keywords:
Urethral lymphoma
Non Hodgkin lymphoma

ABSTRACT

Introduction: Primary diffuse large B-cell lymphoma (DLBCL) of the female urethra is a highly uncommon malignancy.
Case report: A 78-year-old woman presents with urethrorrhagia and dysuria. Clinical examination revealed a protruding mass at the urethral meatus, accompanied by bilateral inguinal adenopathies. Imaging studies confirmed the presence of a 2.2 cm mass and widespread adenopathies. Treatment involved surgical removal and adjuvant systemic chemotherapy with a favorable six-month follow-up outcome.
Conclusion: Our case report aims to raise awareness of this rare disease. Early diagnosis and treatment may improve the patient survival.

1. Introduction

Lymphoma is a heterogeneous group of malignancies originating from lymphoid tissues, mainly classified into Hodgkin's (HL) and non-Hodgkin's (NHL) lymphomas.[1]

Extranodal presentations of NHL are relatively common,[2] however the genitourinary tract forms are rare. More than 90% of these cases are secondary to another primary disease.[3] Primary urethral lymphoma is less common. The most frequently described subtypes are mucosa-associated lymphoid tissue-type (MALT) lymphoma and diffuse large B-cell lymphoma (DLBCL).[4]

Herein, we report a case of diffuse large B-cell urethral lymphoma and conduct a literature review.

2. Observation

Mrs. K.Z., a 78-year-old woman, with history of rheumatoid arthritis on low-dose corticosteroids. She consulted for intermittent urethrorrhagia and dysuria.

Clinical examination revealed a 3 cm bulging mass externalized through the urethral meatus, bleeding on contact (Fig. 1), it also showed bilateral and fixed inguinal adenopathies on palpation.

Urine cytobacteriological examination showed 3000/mm3 leucocytes, 2000000/ml erythrocytes with no bacteriuria, other blood tests were all within normal limits.

T1-and T2-weighted abdominopelvic MRI sequences showed a 3.2 cm mass of the urinary meatus, with bilateral, inguinal, iliac and lumboaortic adenopathies (Fig. 2). Thoracic CT scan did not reveal any secondary pulmonary locations.

Surgical removal of the mass on a Foley catheter was performed, Histopathological analysis supplemented by immunohistochemistry revealed diffuse large B-cell lymphoma of the urethra (Fig. 3).

Adjuvant systemic chemotherapeutic treatment was administered using six cycles of cyclophosphamide, hydroxydaunorubicin, oncovin and prednisolone (CHOP).

After six months follow-up, the patient was in complete remission and the urethral meatus had completely healed.

3. Discussion

Primary diffuse large B-cell lymphoma of the urethra is a rare condition. Its exact etiology is unknown. It may be related to chronic urethral inflammation, viral infection, autoimmune disease, gene mutation, or other factors.[3]

* Corresponding author.
E-mail address: abdelmounim.boughaleb@um5r.ac.ma (A. Boughaleb).

https://doi.org/10.1016/j.eucr.2023.102594
Received 15 October 2023; Accepted 18 October 2023
Available online 19 October 2023

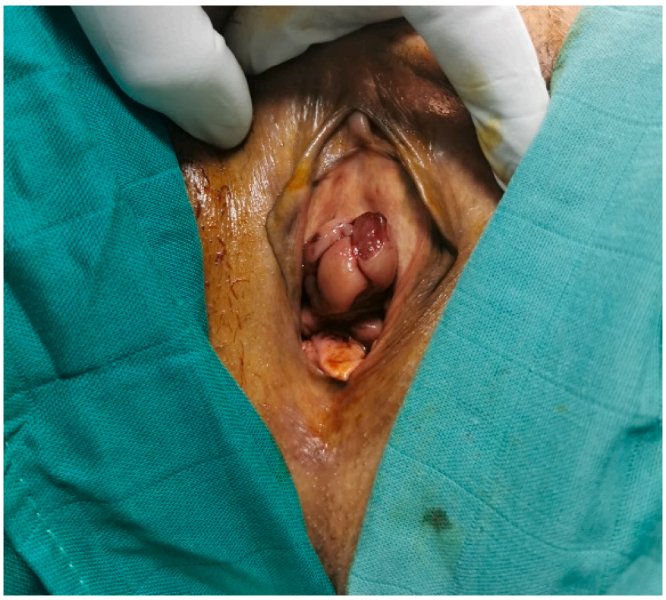

Fig. 1. A 3 cm bulging mass externalized through the urethral meatus.

To the best of our knowledge, only few cases have been reported in the literature. Most of them involves women. The age distribution ranged from 30 to 90 years.

The most common reported symptoms are dysuria, urinary retention, gross hematuria, pollakiuria, urgency, and genital itching.[5]

Systemic symptoms are also reported, including weight loss, fatigue, and generalized weakness. However, our patient did not have any of these systemic symptoms.

Physical examination reveals in most cases a supracentrimetric painless mass. Chronic ulcer was reported in one case.

The differential diagnosis is made with other etiologies of masses of the urethra in women, mainly caruncle, benign tumors and urothelial cancers.

Diagnosis is based on the characteristics of tumor cells and immunohistochemical characteristics. Lymphoma cells of the urethra are atypical, larger in size compared to mature lymphocytes, often diffusely grown and present frequent mitosis stages. Typical immunological characteristics comprise positivity for CD20 and CD79a.[3] The CD20 marker was used to confirm the diagnosis in our patient.

There is no consensus on treatment of DLBCL of the urethra. The management must consider various factors, including the patient age, overall health, type, staging grade and prognostic factors.

The chemotherapy for DLBCL involves 6 to 8 cycles and includes a combination of cyclophosphamide, hydroxydaunorubicin, oncovin and prednisolone (CHOP) with or without rituximab.[1]

Other Treatment options includes surgery, radiation therapy, or even a watchful waiting approach. These treatments might be combined or used individually.[4]

In our case, the patient remained alive and in complete remission 6 months after surgical removal and 6 courses of CHOP chemotherapy.

It has been reported that patients with a local tumor have a good outcome. However, patients with disseminated disease showed a poor prognosis.[5]

4. Conclusion

Primary urethral lymphoma is an extremely rare malignancy that needs to be remembered in the differential diagnosis of urethral masses.

Due to its rarity, there is no consensus on treatment. However, it is imperative to emphasize that early diagnosis and treatment are linked to a better prognosis.

Author contribution

All authors have contributed to this work and have read and approved the final version of the manuscript.

Declaration of competing interest

The authors declare no conflict of interest.

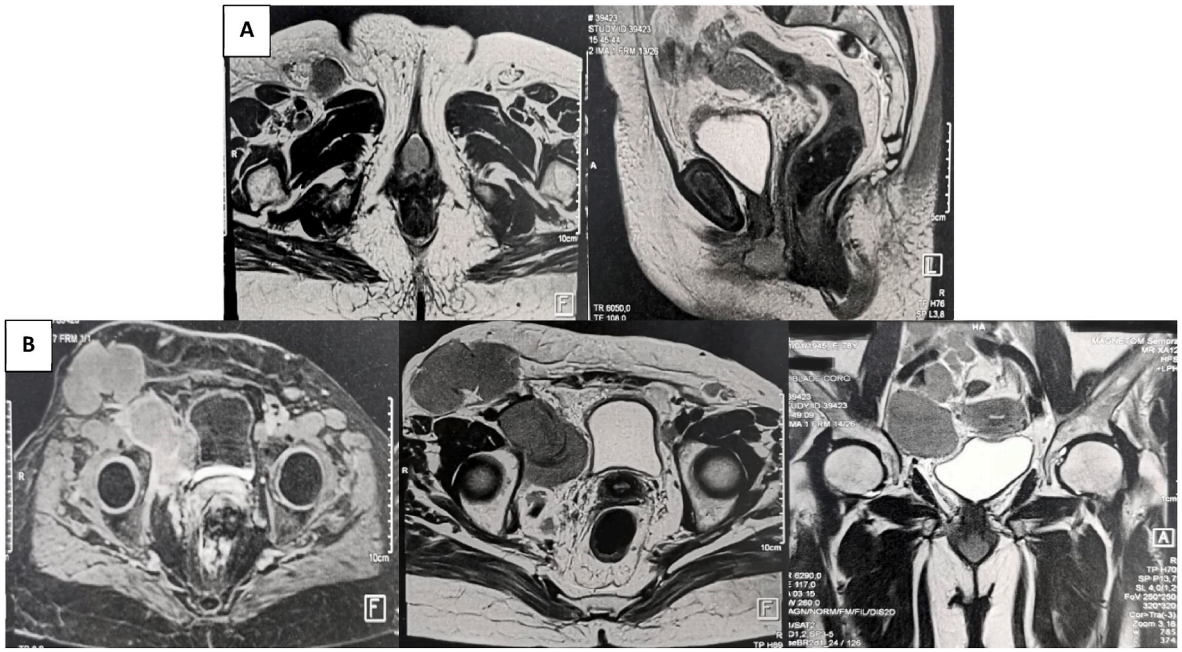

Fig. 2. MRI sequences showing a mass of the urinary meatus, with bilateral adenopathies. A- A 2.2 cm mass of the urinary meatus. B- Bilateral, inguinal, iliac and lumboaortic adenopathies.

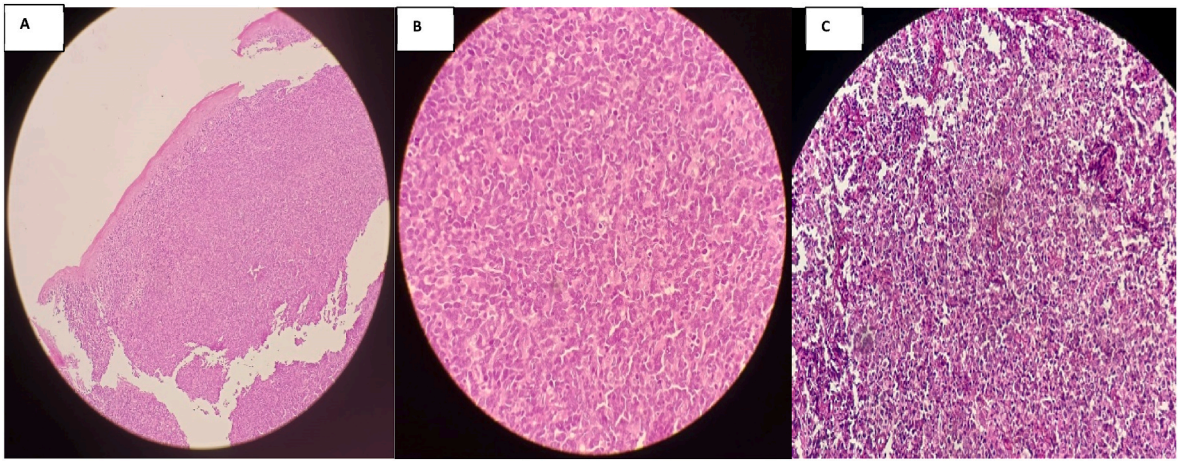

Fig. 3×. Histological and immunohistochemical examination: A: squamous mucosa with diffuse round-cell proliferation (HE staining, magnification, 4 ×), B: nuclei with vesicular chromatin, visible nucleoli and numerous mitoses (HE staining, magnification, 40 ×). C: Immunohistochemistry of the tumour highlighting immunopositivity with CD20 (IHC, magnification, 40 ×).

Acknowledgements

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

References

1. Ngowi BN, Bright F, Mremi A, Kimolo M, Mteta AK, Mbwambo OJ. Primary diffuse large B-cell lymphoma of the kidney: a rare case report and review of literature. *Int J Surgery Case Rep*. 2023, 108428.
2. Friedes C, Dietrick B, Kaur H, Meyer AR, Winoker JS. Primary ureteral lymphoma presenting as bilateral obstructive uropathy. *Urol Case Rep*. 2020;33, 101296.
3. Zeng H, Wang J, Deng R, Chen Z. Primary diffuse large B-cell lymphoma of the female urethra: a case report and review of the literature. *OncoTargets Ther*. 2020;13: 13015–13022. https://doi.org/10.2147/OTT.S283704.
4. Chien C-W, Lee C-K, Wang P-N, Chien P-C, Hsu Y-Y, Tseng L-H. Urethral large B-cell urethral lymphoma: a case report and literature review. *Taiwan J Obstet Gynecol*. 2021;60(5):920–923. https://doi.org/10.1016/j.tjog.2021.07.025.
5. Zahrani AA, Abdelsalam M, Fiaar AA, Ibrahim N, Al-Elawi A, Muhammad B. Diffuse large B-cell lymphoma transformed from mucosa-associated lymphoid tissue lymphoma arising in a female urethra treated with rituximab for the first time. *Case Rep Oncol*. 2012 May;5(2):238–245. https://doi.org/10.1159/000333357. Epub 2012 May 15. PMID: 22679430; PMCID: PMC3369256.