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IMAGES IN UROGYNECOLOGY

An uncommon case of mucosa-associated lymphoid tissue (MALT) tumor of the bladder

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Introduction

Primary lymphoma of the bladder (LOB) is a rare lesion, with <100 cases reported in the literature since 1885 [1]. Our patient presented with a history of recurrent urinary tract infections (UTIs), frequency and nocturia. We discuss the diagnosis and management of LOB.

Case study

A 74-year-old woman presented with frequency, nocturia and recurrent UTIs over the previous 6 months. The urine culture was negative, with persistent microscopic haematuria. Urine cytology was negative for malignant cells, and computed tomography (CT) urogram (Fig. 1) and cystoscopy (Fig. 2) showed a posterior wall bladder mass measuring 3.4 cm. Biopsy with immunohistochemistry revealed CD-20-positive atypical small B-cell lymphoma, in particular, mucosa-associated lymphoid tissue (MALT) tumor. A positron emission tomography (PET) CT (Fig. 3) and a bone marrow biopsy showed no evidence of extravesicular disease. The patient underwent radiotherapy (Fig. 4).

Primary lymphomas account for <1% of bladder tumors. Secondary lymphomas involve the bladder in 10–25% cases of advanced leukemia or lymphoma with a more disseminated disease. The most common histological subtype is MALT, with the others being diffuse large B-cell lymphomas [2]. Patients present with urinary frequency, nocturia, dysuria, haematuria, fatigue, weight loss and suprapubic or abdominal pain [3]. Symptoms of cystitis and association with autoimmune conditions confirm the importance of the stage of continued antigenic stimulation in disease development and progression, as mentioned in earlier studies [1]. Diagnosis is based on imaging, cystoscopy, histopathology and immunohistochemical staining. Prognostic factors include tumor staging and histologic subtype. MALT lymphomas are low-grade, localized indolent tumors, with an excellent prognosis. Most aggressive tumors are of the diffuse large B-cell type, with relatively

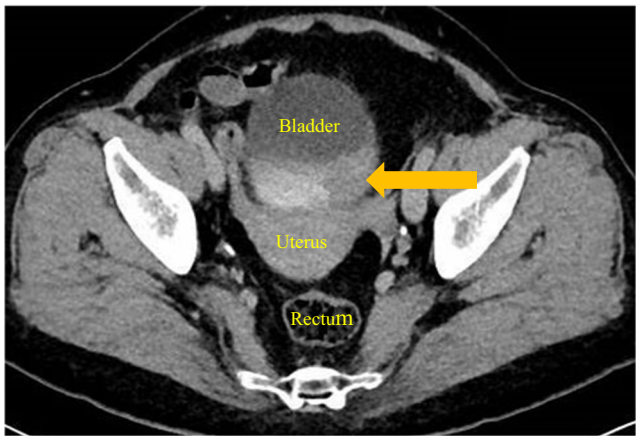

Fig. 1 Computed tomography (CT) urogram showing an irregular nodular soft-tissue mass measuring 3.4 × 2.3 × 1.2 cm in the posterior lateral wall of the urinary bladder , in keeping with the mass noted on cystoscopy

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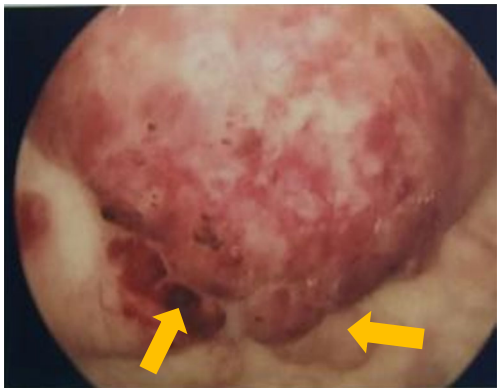

Fig. 2 Cystoscopy confirming the 3.4-cm mass with hyperaemic surface surrounded by a few smaller lesions (*arrowed*)

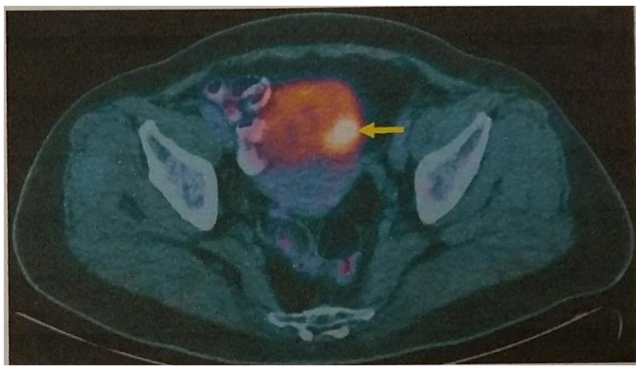

Fig. 3 [^{18}F]-fluorodeoxyglucose (FDG) positron emission tomography computed tomography (PET/ CT) shows focal thickening in the superior aspect of the left side of the bladder wall with increased vascularity. Mildly increased physiological urinary activity is also demonstrated. There are no FDG – avid abdominal, retroperitoneal, pelvic, or inguinal nodes

poor prognosis. Radiotherapy is curative and involves lesion marking followed by administration of the calculated dose over several sessions.

Primary lymphoma of the bladder may be a rare diagnostic outcome for patients with recurrent UTI or persistent haematuria. It is important to raise awareness amongst clinicians in such cases of lesser known pathology.

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Compliance with ethical standards

Conflicts of interest None.

Consent Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

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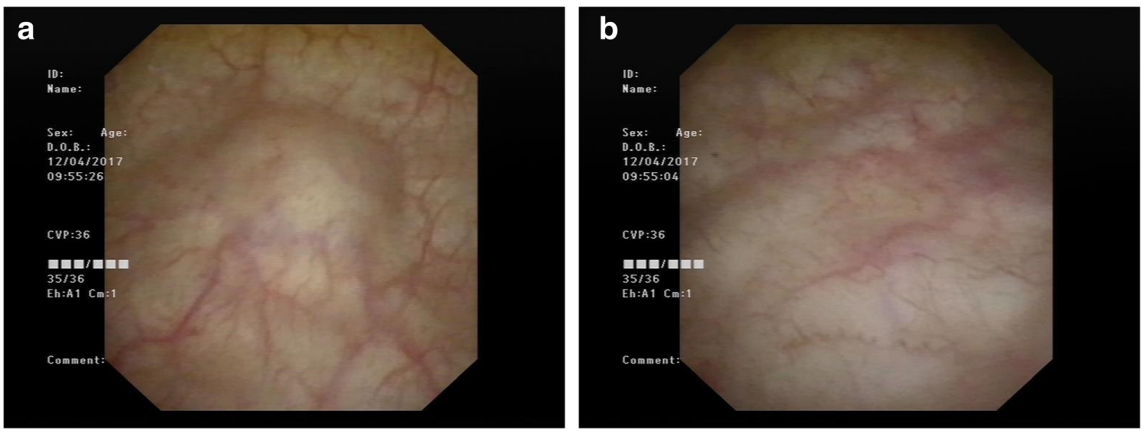

Fig. 4 Post-radiotherapy cystoscopy image showing the mass has completely disappeared, with normal appearance of the bladder mucosa. In this case, radiotherapy was delivered over 15 sessions. It is curative in 90% of cases. Common side effects include nausea, vomiting, pain, fatigue and likely risk of haematological cancers later in life