Renal colic: an unusual presentation of non-Hodgkin’s lymphoma of the urinary bladder

P. Hadway†, A. A. Riaz†, K. L. Lotzof‡ and J. S. Gelister†

Departments of †Urology, ‡Radiology, Barnet General Hospital, Wellhouse Lane, Barnet, EN5 3DJ, UK

Corresponding address: P. Hadway, Department of Urology, St. George’s Hospital, Blackshaw Road, London, SW17 0QT, UK. Tel.: +44-20-8725-3076; fax: +44-20-8725-2915; E-mail: paulhadway@doctors.org.uk

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Abstract

Secondary involvement of the urinary bladder in non-Hodgkin’s lymphoma is relatively common, but primary malignant lymphomas of this organ remain exceedingly rare. We report a case presenting atypically with renal colic and briefly review the relevant literature.

Keywords

Non-Hodgkin’s lymphoma; urinary bladder; renal colic.

Case report

A 65-year-old woman presented with a 4 month history of right-sided loin to groin pain. She had a past medical history of recurrent urinary tract infection, and complained of intermittent urinary frequency, urgency and nocturia. She was systemically well.

General and abdominal examinations were unremarkable, and in particular there was no hepatosplenomegaly or lymphadenopathy.

Routine blood tests were normal with the exception of an elevated white cell count (16 × 10⁹ with neutrophils 14 × 10⁹). An intravenous urogram (IVU) showed bilateral duplex systems with a large filling defect in the bladder, with right hydrenephrosis. No calculi were seen (Fig. 1). Computed tomography (CT) of the abdomen and pelvis confirmed the presence of a tumour, extending beyond the bladder into obturator internus, but there was no evidence of more widespread intra-abdominal disease (Fig. 2). Cystoscopy revealed a solid tumour obscuring the right ureteric orifice. This was extensively biopsied.

Histological analysis provided the diagnosis of a low-grade B-cell non-Hodgkin’s lymphoma of mucosa associated lymphoid tissue (MALT) type.

We consulted our haematology colleagues and a CT thorax and bone marrow trephine were performed for the purposes of staging. These were normal. The patient received chlorambucil chemotherapy. She remains in complete remission at 7 years with no evidence of a bladder mass on repeat CT imaging (not shown).

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Fig. 1. IVU. Bilateral duplex kidneys with partial duplex ureters. Dilated right collecting system and ureter. Large filling defect involving most of the right side and base of the bladder.

Fig. 2. CT. Large uniformly enhancing soft tissue mass involving the posterior and right wall of the bladder.

Discussion

Thirteen percent of patients with lymphoma have evidence of bladder involvement\[^1\]. Primary lymphoma of the bladder, however, is an extremely rare non-epithelial tumour, with less than 100 cases reported in the literature. As for primary lymphomas of the gastrointestinal tract, the majority are low-grade B-cell non-Hodgkin’s lymphomas of MALT subtype\[^2\].

A review of 66 case reports in 1990 showed the most common presenting symptom to be haematuria (79%), with frequency and dysuria in 22% of cases\[^3\]. The same authors found an elderly female preponderance amongst those affected, and a history of chronic cystitis in at least 22%. Our case is in keeping with these demographic features, but is unusual in terms of the main presenting symptom of loin pain mimicking renal colic.

The aetiology of MALToma of the bladder remains unclear. As there is no naturally occurring lymphoid tissue in the bladder, it is possible that pre-existing acquired inflammation can induce MALT\[^4\]. The association between gastric MALToma and Helicobacter pylori infection is well
 recognised. The other less likely possible origin of MALT relates to the bladder’s embryonic origin from the cloacae, and the potential for inherent lymphoid tissue related to Peyers patches within the gut\cite{4}.

Treatment is not uniform due to the rarity of the disease. The overall prognosis is good with chemotherapy or radiotherapy, either alone or in combination with local resection\cite{5}. Consequently, accurate diagnosis is important. Chemotherapy has the advantage of being able to treat occult dissemination, but these tumours have a tendency to remain localised to the bladder with a low risk of progression\cite{4}. Major surgery appears unnecessary\cite{5} and antibiotics may prove to have a role in prophylaxis and treatment.

References