A unique case of kidney’s collecting system MALT lymphoma

Seyed Alaeddin Asgari, MD; Hamidreza Baghani Aval, MD; Seyed Ali Asgari, MD; Keyvan Kheradmand, MD

Urology Research Center, School of Medical, Guilan University of Medical Sciences, Razi Hospital, Rasht, Iran

Published online March 11, 2014.

Abstract

Low-grade B cell lymphomas of mucosa-associated lymphoid tissue (MALT lymphomas) are mostly seen in the gastrointestinal tract. MALT lymphomas involving kidney are extremely rare. We report on a case of MALT lymphomas of the kidney. A 74-year-old woman presented with an episode of gross hematuria and right flank pain. In renal sonography, we found a hypoecho lesion measuring 61 × 58 × 44 mm in the lower pole of right kidney. A computed tomography scan revealed an enlarged hypodense soft tissue measuring 62 × 42 × 37 mm within the pelvic brim of the right kidney, with extension to the proximal portion of the ipsilateral ureter and engulfed it. The patient underwent a right radical nephrectomy. The pathology specimen indicated a lymphoprolifratve disorder involving the kidney and ureter. To obtain a definitive diagnosis, we used an immunohistochemistry, which confirmed the diagnosis of a MALT lymphoma.

Introduction

Low-grade B cell lymphomas of mucosa-associated lymphoid tissue (MALT lymphomas) is mostly seen in the gastrointestinal tract. MALT lymphomas involving kidney are extremely rare; the first was reported by Pelsdving and colleagues in 1991. Primary renal lymphoma typically presents at age 40 with flank pain, weakness, weight loss, hematuria, malaise, abdominal mass or renal failure. The kidney does not have lymphoid tissue, but repetitive injuries to renal lymphatics due to chronic inflammation may cause malignant transformation to neoplasia of the lymphoid tissue. This occurs in extra nodal MALT lymphoma, which affects the skin, the gastrointestinal tract and the breast.
Renal involvement by B cell lymphoma represents a manifestation of non-Hodgkin lymphoma. Renal lymphoma can be either primary or associated with external lymphoma.

Primary renal lymphoma typically presents in age above 40, with flank pain, weakness, weight loss, hematuria, abdominal mass or renal failure. Kidney does not have lymphoid tissue, but repetitive injury to renal lymphatics due to chronic inflammation may cause malignant transformation to neoplasia of the lymphoid tissue. This occurs in extra nodal MALT lymphoma, which affects the skin, the gastrointestinal tract and the breast. However, renal MALT lymphoma is rare.

Diagnosis is a challenge; it is sometimes difficult to distinguish MALT lymphomas from more common tumours, such as renal cell carcinoma (RCC), in imaging studies; diagnosis, however, can be confirmed with a CT-guided biopsy of the mass. In most cases, diagnosis is made after radical nephrectomy for the suspected RCC. MALT lymphomas can be treated with chemotherapy, surgical intervention or radiotherapy.

Chemotherapy is the foundation of treatment, especially for controlling systemic disease; early proper treatment correlates with improved outcome. Patients with MALT lymphomas have a better prognosis compared with patients with a higher grade lymphomas.

Cueto and colleagues reported a case of MALT lymphoma and RCC. This report reminds us that all solid enhancing renal masses are not RCC. As therapy may be greatly affected by a different diagnosis, this case further supports the role of renal biopsy in unusual lesions. Although, in our case, the infiltrative appearance of the lesion in CT and the medial location of the kidney mass, we were technically hampered in performing the biopsy.

---

**Discussion**

Renal involvement by B cell lymphoma represents a manifestation of non-Hodgkin lymphoma. Renal lymphoma can be either primary or associated with external lymphoma.

Primary renal lymphoma typically presents in age above 40, with flank pain, weakness, weight loss, hematuria, abdominal mass or renal failure. Kidney does not have lymphoid tissue, but repetitive injury to renal lymphatics due to chronic inflammation may cause malignant transformation to neoplasia of the lymphoid tissue. This occurs in extra nodal MALT lymphoma, which affects the skin, the gastrointestinal tract and the breast. However, renal MALT lymphoma is rare.

Diagnosis is a challenge; it is sometimes difficult to distinguish MALT lymphomas from more common tumours, such as renal cell carcinoma (RCC), in imaging studies; diagnosis, however, can be confirmed with a CT-guided biopsy of the mass. In most cases, diagnosis is made after radical nephrectomy for the suspected RCC. MALT lymphomas can be treated with chemotherapy, surgical intervention or radiotherapy.

Chemotherapy is the foundation of treatment, especially for controlling systemic disease; early proper treatment correlates with improved outcome. Patients with MALT lymphomas have a better prognosis compared with patients with a higher grade lymphomas.

Cueto and colleagues reported a case of MALT lymphoma and RCC. This report reminds us that all solid enhancing renal masses are not RCC. As therapy may be greatly affected by a different diagnosis, this case further supports the role of renal biopsy in unusual lesions. Although, in our case, the infiltrative appearance of the lesion in CT and the medial location of the kidney mass, we were technically hampered in performing the biopsy.
MALT lymphoma is rare in patients with renal mass. Early diagnosis and proper treatments are cornerstones for favourable prognosis. MALT lymphoma, like the other types of
lymphoma, is chemosensitive. Early treatment begets a favourable outcome.

**Competing interests:** Dr. Asgari, Dr. Aval, Dr. Asgari and Dr. Kheradmand all declare no competing financial or personal interests.

This paper has been peer-reviewed.

**References**


**Correspondence:** Dr. Hamidreza Baghani Aval, Urology Research Center, School of Medicine, Guilan University of Medical Sciences, Razi Hospital, Sardar Jangal St., Rasht, Iran; hamidreza_baghani@yahoo.com