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## Lupus cystitis presenting with urinary symptoms

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**Abstract** We present a case of a young woman presenting with irritative lower urinary tract symptoms and microscopic hematuria who was diagnosed with systemic lupus erythematosus (SLE). Abdominal ultrasound revealed bilateral hydronephrosis and a thickened bladder wall. Cystoscopic evaluation revealed severe diffuse inflammation, erythema and hemorrhage at the trigone with punctate extensions to the bladder base. She was treated with prednisone and mycophenolate mofetil with improvements in her symptoms and ultrasound findings. Lupus cystitis is a rare manifestation of SLE.

Key Words: Cystitis, lower urinary tract symptoms, systemic lupus erythematosus

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#### INTRODUCTION

Systemic lupus erythematosus (SLE), is a systemic autoimmune disease with rare involvement of the genitourinary system. We present here a rare case report of a female patient with SLE involvement of the bladder.

#### **CASE REPORT**

A 28-year-old Asian woman presented to the emergency department with acute onset of seizures, abdominal pain, facial rash, dysuria, urinary urgency, and fatigue. She denied gross hematuria, fevers, chills, vomiting. Physical exam revealed a malar rash. Her abdomen was soft, but diffusely tender with mild left costovertebral angle tenderness. Her vital signs were within normal limits. Her serum creatinine was elevated to 1.4 mg/dL from a baseline of I mg/dL and urinalysis showed isolated microhematuria. Further workup included a positive

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anti-double-stranded DNA antibody leading to the diagnosis of SLE. Workup of her abdominal pain included an abdominal ultrasound, which revealed mild bilateral hydroureteronephrosis and thickened bladder wall [Figure I].

Based on this radiographic finding, the urology service was consulted. Cystourethroscopy with bilateral retrograde pyelography was performed to evaluate for ureteral and distal obstruction. Cystoscopic evaluation of the bladder revealed severe diffuse inflammation, erythema and hemorrhage at the trigone with punctate extensions to the bladder base [Figure 2]. The remainder of the bladder appeared normal, and the ureters were normal on retrograde pyelography.

Given her clinical presentation and laboratory results, these cystoscopic findings were consistent with lupus cystitis. The patient was started on prednisone and mycophenolate mofetil. One month later, the patient's urinary symptoms and microhematuria resolved. Her creatinine improved to 1.2 mg/dL and renal ultrasound showed resolution of hydronephrosis and improvement in the bladder wall thickening.

#### DISCUSSION

Systemic lupus erythematosus is a systemic autoimmune disease that can affect any part of the body. Overall, women with SLE Harris, et al.: SLE with urinary symptoms

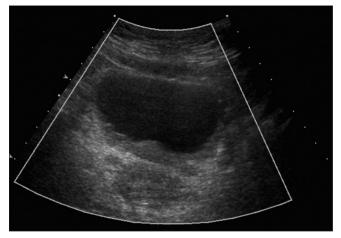
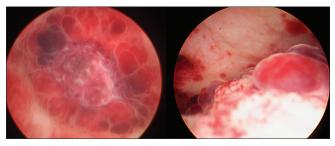


Figure 1: Abdominal ultrasound demonstrating thickened bladder wall

are more likely to develop voiding dysfunction compared to the general population.<sup>[1]</sup> Lupus cystitis is a rare manifestation of SLE, and most reported cases are from East Asia. Patients typically present with irritative voiding symptoms and approximately 92% have associated the hydronephrosis.<sup>[2]</sup> Lupus cystitis often presents concurrently with gastrointestinal involvement (lupus enteropathy) but may also be the only manifestation as well.<sup>[3]</sup> Most patients do not require intervention and respond well to immunosuppressive therapy as demonstrated in our patient.



**Figure 2:** Cystoscopic evaluation of the bladder demonstrating severe diffuse inflammation, erythema and hemorrhage at the trigone with punctate extensions to the bladder base

#### REFERENCES

- Yu HJ, Lee WC, Lee KL, Chen MY, Chen CY, Chen J. Voiding dysfunction in women with systemic lupus erythematosus. Arthritis Rheum 2004;50:166-72.
- Shimizu A, Tamura A, Tago O, Abe M, Nagai Y, Ishikawa O. Lupus cystitis: A case report and review of the literature. Lupus 2009;18:655-8.
- Asia S, Martellotto G, Belén R, Sesín AM, Gamróm S, Drenkard C. Obstructive uropathy as the only manifestation of flare in a patient with systemic lupus erythematosus and anti-phospholipid syndrome. Lupus 2008;17:46-9.

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