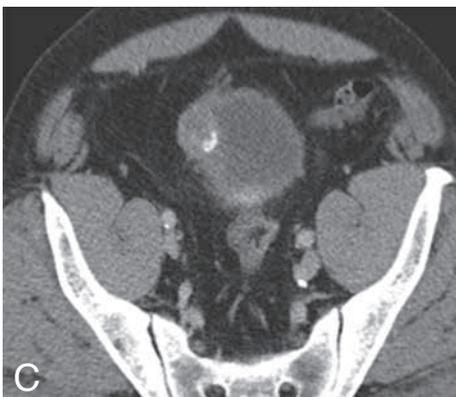
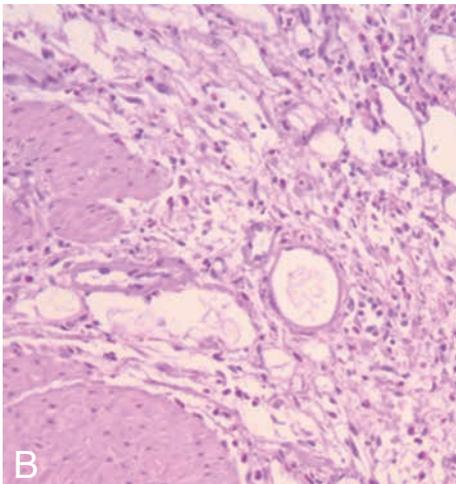


## IMAGES IN CLINICAL RADIOLOGY



### *Eosinophilic cystitis mimicking bladder tumor*

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A 48-year-old man presented to the Urology Department with acute dysuria and macroscopic hematuria for 2 days. There was no frequency or nocturnal enuresis. Analysis of midstream urine showed hematuria and pyuria.

CT urography showed a mass anterior and cranial in the right bladder wall, protruding into the lumen of the bladder and infiltrating the bladder wall and the surrounding peritoneal fat tissue. The lesion had a hypodense center and a thick, mildly enhancing wall (Fig. A). The mass measured approximately 56 × 50 × 48 mm. There were no locoregional adenopathies. Due to the anterior location in the bladder wall, there was no hydronephrosis or ureteral dilatation. A tentative diagnosis of transitional cell carcinoma was made.

Cystoscopy and biopsy were performed, and microscopic examination showed, to our surprise, an eosinophilic cystitis. Fig. B shows oedema in the deep muscular layer (left) and inflammatory cells, predominantly eosinophils (right).

Control CT, performed respectively 8 weeks and 14 weeks following biopsy and treatment with an oral corticosteroid, showed decrease in size and decrease of intraluminal protrusion and perilesional infiltration. Progressive eggshell peripheral calcifications were seen (Fig. C).

#### *Comment*

Eosinophilic cystitis (EC) is a rare condition characterized by inflammatory cells with eosinophils in the bladder wall, fibrosis of the mucosa and the muscularis, and muscle necrosis. No underlying cause can be detected in 29%, as was the case in our patient. In the remaining 71%, EC is associated with transitional cell carcinoma of the bladder (with or without intravesical chemotherapy), respiratory disease, bladder outlet obstruction, medications, autoimmune disorder, nonurological parasitic disorder, and eosinophilic enteritis. Patients present with irritative voiding symptoms, hematuria and suprapubic discomfort. Mean age is 41.6 years, with a male-to-female ratio of 1.3:1. Imaging with CT, US and cystoscopy reveals a bladder mass, indistinctive of other benign inflammatory or malignant bladder disease. Biopsy is mandatory for correct diagnosis of EC. Treatment is usually conservative, based on non-steroidal anti-inflammatory drugs, anti-histamines, corticosteroids, and antibiotics in case of urinary tract infection. Transurethral resection of the lesion may be considered when there is no resolution following conservative treatment.

#### *Reference*

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