Dysuria as Presenting Symptom of Necrotizing Glomerulonephritis

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Dear Sir,

Although systemic vasculitis is generally considered a disease characterized by a dramatic onset, the nephrologist should be aware of unusual presentation patterns. Here we report a case in which dysuria appeared to be the presenting symptom of a lethal and quickly evolving disease.

Case Report: A 73-year-old noninsulin-dependent and hypertensive man with a history of chronic bronchitis, in February 1988, started to complain of dysuria-pollakiuria. Urinalysis showed no bacterial growth and the serum creatinine was $124 \mu\text{mol/l}$ (1.4 mg/dl), proteinuria 1.0 g/l and the ESR 100 mm/h. The urinary symptoms persisted during 1988-89 but the urinalysis always showed no bacterial growth, whilst serum creatinine increased in December 1989 to $213 \mu\text{mol/l}$ (2.4 mg/dl). The nature of kidney disease was not assessed but the urinalysis showed microhematuria and leukocyturia. In February 1990, the patient presented with nausea, vomiting, and diarrhea. Serum creatinine was $842 \mu\text{mol/l}$ (9.5 mg/dl) and he was referred to our department. When clinically assessed, the patient was still complaining of dysuria; he was slightly dyspneic and no edema was present. Vascular bruises were heard at carotid and femoral level, blood pressure was 180/80 mm Hg and the patient was oliguric. Clinical biochemistry showed: serum creatinine $887 \mu\text{mol/l}$ (10 mg/dl), hemoglobin 9.5 g/dl, triglycerides 4.12 mmol/l (375 mg/dl), ESR 140 mm/h, α_2 -globulins 25%, IgA 468 mg/dl, rheuma test: twice positive (titer 1/89, 1/96),

24-hour protein excretion was 6 g, urinalysis showed over 200 RBC, 15-20 WBC pmf and granular casts. The urinary culture was again negative. On renal ultrasound the kidneys were slightly reduced in size but both bladder or kidney stones and obstructive nephropathy were excluded, whilst an enlarged prostate was reported. The kidney biopsy showed necrotizing glomerulonephritis with crescents. Immunofluorescence showed slight IgA, IgM and C3 deposits. The patient was started on chronic hemodialysis, but shortly after he died with cardiac arrest.

Comment: Necrotizing glomerulonephritis is often observed in systemic vasculitis, and dysuria has been occasionally reported among the accompanying symptoms of vasculitides,

such as polyarteritis nodosa, temporal arteritis, systemic lupus erythematosus and Goodpasture's syndrome [1-3]. As mechanisms explaining the dysuria, bladder neuropathy, interstitial cystitis and granulomatous prostatitis have been suggested [1-4].

We are aware that in this elderly patient a prostate or bladder biopsy would have been necessary in order to demonstrate a relationship between dysuria and the systemic disease. However, our patients had no other apparent cause for his symptoms and all urine samples tested over 2 years showed no bacterial growth. We believe that in this patient the dysuria was the presenting symptom of a systemic disease and that it could be related to a vasculitic involvement of the urinary tract.

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