

Causes of Isolated Microscopic Haematuria

Source: R. A. Cohen and R. S. Brown. Microscopic hematuria. *The New England Journal of Medicine* 348, no. 23 (2003): 2330–2338. www.nejm.org

Patient < 50 years of age

Glomerular

IgA nephropathy (increased incidence in Asians)
Thin basement membrane disease (benign familial haematuria)
Hereditary nephritis (Alport's syndrome)
Mild focal glomerulonephritis of other causes

Non-glomerular: Upper urinary tract causes

Nephrolithiasis
Pyelonephritis
Polycystic kidney disease
Medullary sponge kidney
Hypercalciuria, hyperuricosuria, or both, without documented stones
Renal trauma
Papillary necrosis
Ureteral stricture and hydronephrosis
Sickle cell trait or disease
Renal infarction or arteriovenous malformation
Renal tuberculosis in endemic areas or in patients with HIV

Non-glomerular: Lower urinary tract causes

Cystitis, prostatitis, and urethritis
Benign bladder and ureteral polyps and tumours
Bladder cancer
Prostate cancer
Strictures of the urethra or meatus
Schistosoma haematobium infection

Uncertain

Exercise haematuria
'Benign haematuria' (unexplained microscopic haematuria)
Over-anticoagulation (usually with warfarin)
Factitious haematuria (usually presents with gross haematuria)

Patient > 50 years of age

Glomerular

IgA nephropathy
Hereditary nephritis (Alport's syndrome)
Mild focal glomerulonephritis of other causes

Non-glomerular: Upper urinary tract causes

Nephrolithiasis
Renal-cell cancer
Polycystic kidney disease
Pyelonephritis
Renal-pelvis or ureteral transitional-cell cancer
Papillary necrosis
Renal infarction
Ureteral stricture and hydronephrosis
Renal tuberculosis

Non-glomerular: Lower urinary tract causes

Cystitis, prostatitis, and urethritis
Bladder cancer
Prostate cancer
Benign bladder and ureteral polyps and tumours

Uncertain

Exercise haematuria
Over-anticoagulation (usually with warfarin)