Urethral Syndrome

Synonym: abacterial cystitis

Urethral syndrome describes lower urinary tract symptoms (urinary frequency, urgency, dysuria, and suprapubic discomfort) but no recognised urinary pathogen cultured from urine or any other objective finding of urological abnormality.

The diagnosis of urethral syndrome is based on the history, negative urine cultures, dynamic cystourethroscopy and urodynamic studies. Use of the term urethral syndrome is now controversial as there are no agreed diagnostic criteria and there is an overlap with other diagnoses - eg, interstitial cystitis.¹

Epidemiology

- Urethral syndrome is thought to affect about 1 in 4 of all adult women and it is particularly seen in young women. The exact incidence of urethral syndrome is unknown because of a lack of consensus in diagnosis.
- Risk factors include grand multiparity, delivery without episiotomy and two or more abortions.
- Urethral syndrome is more common in females than in males and is more common in white women.

Presentation

- Presenting features usually include suprapubic discomfort, dysuria, and urinary frequency.
- Examination should include a thorough abdominal examination and gynaecological examination.

Differential diagnosis

- Stress incontinence.
- Atrophic urethritis and vaginal atrophy in perimenopausal or postmenopausal women.
- Urinary tract infection.
- Other causes of sterile pyuria.
- Urethritis due to:
  - Chlamydia trachomatis²
  - Lactobacilli
  - Neisseria gonorrhoeae
  - Ureaplasma urealyticum
- Urethral stenosis (including postsurgical scarring) and spasm.
- Other structural abnormalities - eg, diverticula.
- Allergy or irritation - eg, nylon underwear.
- Trauma during sexual intercourse.
- Vaginal infection.
- Generalised anxiety.

Investigations

- Urine dipstick analysis and send midstream specimen of urine for microscopy, culture and sensitivities.
- Urethral swab for chlamydia, chlamydial-antigens in first-pass urine sample.
- If chlamydia-negative and persistent symptoms, obtain a sample by suprapubic aspiration or urethral catheterisation and culture under special conditions for "fastidious" or slow-growing organisms. Any organisms detected in this way are clinically significant.
- If no infection is found, consider cystoscopy to exclude non-infective causes. Further investigations may also include pelvic ultrasound, MRI scan, intravenous urography and urodynamic studies.

Management

General principles

- Underlying psychological problems should be considered and may need treatment but they are often irrelevant.
- Behavioural therapy (including biofeedback, meditation, and hypnosis) has been used with some success.
- Highly acidic foods, including spicy foods, should be avoided.
- Exercise and massage programmes can be very helpful.
- Urethral massage may help by encouraging drainage of mucus from chronically infected periurethral glands.

Medication
Treatment of urinary tract infections and chlamydial urethritis as indicated.
Vaginal oestrogen cream may be curative in patients with atrophic urethritis.

Surgery
Urethral dilatation assumes that symptoms are due to urethral spasm or stricture. However, there is very little clinical evidence of effectiveness and it may cause periurethral fibrosis leading to urethral strictures. Urethral dilatation is therefore only now performed if true urethral stenosis is found.

Complications
Chronic pain may have a severe psychological impact.

Prognosis
Symptoms of urethral syndrome usually improve with age but may be lifelong.

Further reading & references
- Urinary tract infection (lower) - women; NICE CKS, November 2013 (UK access only)

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