Recurrent Urinary Tract Infections in Women

Uncomplicated urinary tract infections (UTIs) occur in a healthy host with a structurally and functionally normal urinary tract. Recurrent uncomplicated urinary tract infections may be defined as two proven episodes within six months or three within one year.

Association with Diabetes

A history of recurrent or relapsing UTIs should alert the physician to the possibility of diabetes mellitus as a complicating factor. Patients with diabetes have twice the risk of experiencing recurrent of relapsing UTIs compared to those without.[1]

Lifestyle Advice

Patients should be encouraged to maintain a fluid intake of 2-3 litres per day. According to a recent Cochrane Review update, cranberry juice or tablets cannot be recommended as these products did not significantly reduce the risk of UTIs in women compared to placebo, water or no treatment.[2]

Other advice that may be considered includes the consumption of probiotic yoghurts, the avoidance of bubble bath, limiting spermicidal use, and the wearing of loose undergarments. Although these recommendations have no good evidence base they are unlikely to be harmful. Patients should be encouraged to empty their bladders fully, particularly after sexual intercourse.

Topical Vaginal Oestrogens

A 2008 Cochrane Review found two small randomised controlled trials that compared the risk of recurrent urinary tract infections in post-menopausal women using topical vaginal oestrogens with those taking a placebo.[3] Risk of UTI recurrence was reduced by about half compared to placebo.

Although there is little evidence to suggest an increased risk of tumour recurrence, the use of topical vaginal oestrogens in women with a history of breast cancer will depend on a number of factors such as oestrogen receptor status and patient preference.[4] Specialist advice from an oncologist is generally recommended.

Antibiotic Regimens

In women with uncomplicated urinary tract infections, three day courses may be as effective as five or seven days of treatment.[5] Pyelonephritis, however, requires a 10-14 day course of antibiotics.

Long-term low-dose antibiotics, typically used for six to twelve months, have been shown to significantly reduce the risk of recurrent UTI.[6] However, a considerable proportion (about half) will revert to their original frequency of infection on cessation of treatment.

Post-coital antibiotics (low-dose within two hours of coitus) are particularly helpful where sexual intercourse is a clear precipitant. Self-start antibiotics (three day course) at the onset of symptoms are another safe treatment option for recurrent uncomplicated UTI.

Intravesical Hyaluronic Acid

The normal bladder urothelium has a high concentration of glycosaminoglycans (GAGs) which act as an impermeable barrier to harmful substances and prevent bacterial adherence thereby protecting against infection. The protective GAG layer may be denuded in conditions such as interstitial cystitis, radiation cystitis and recurrent bacterial cystitis. When instilled into the bladder hyaluronic acid (e.g. Cystistat®) may restore the native GAG layer and has been shown to significantly extend the time to UTI recurrence and reduce the frequency of UTIs. A meta-analysis which included four studies, two of which were randomised controlled trials, showed that patients had more than three fewer infections per year and the mean time to UTI recurrence was extended by almost six months.[7]

Referral for Specialist Investigation

Not all women with recurrent uncomplicated urinary tract infections require investigation or specialist referral. However, if there is suspicion of a complicating cause, patients should be referred for evaluation and possible imaging and cystoscopy.

The Cambridge Urology Partnership offers all patients with recurrent UTIs comprehensive assessment and investigation if needed. Furthermore, we are now offering our patients treatment with intravesical hyaluronic acid (Cystistat®).

Who can I contact for more help or information?

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