key points

SELECTED BY
Dr Peter Saul
GP, Wrexham and associate GP Dean for North Wales

Histological disease (microscopic BPH) is present in more than 60% of men beyond their sixties, and more than 40% of men in this age group have lower urinary tract symptoms (LUTS). The prevalence increases with age. At current intervention rates, about one-fifth of patients with symptomatic disease who present to a doctor will eventually be treated surgically. The remainder will often be managed initially by active surveillance. The majority of these men suffer gradual progression of symptoms and increasingly require treatment.

BPH is characterised by a spectrum of obstructive and irritative symptoms, known collectively as LUTS. Poor urinary flow and the sensation of incomplete bladder emptying are the two symptoms that correlate most closely with the eventual need for prostate surgery. The following conditions cause similar urinary symptoms and should be excluded: Parkinson's disease or stroke, polyuria from diabetes or congestive heart failure, history of urethral strictures, or treatment with, for example, anticholinergics or antidepressants. Untreated, a significant number of men with BPH will eventually develop acute urinary retention.

In addition to symptom assessment, physical examination by digital rectal examination can provide an estimate of prostate volume and exclude a palpable nodule suggestive of prostate cancer. Prostate specific antigen determination provides additional information about the risk of prostate cancer being present.

Medical management of BPH is suitable for most patients with moderate symptoms. The two main evidence-based approaches to medical management are α_1-blockers and 5α-reductase inhibitors (5-ARIs). Severely symptomatic patients may also respond to these drugs. Mild symptoms should usually be managed by active surveillance.

Selective α_1-blockers, such as doxazosin, slow-release alfuzosin and the α_{1A}-selective compound tamsulosin, have all been shown to increase peak urine flow rate and improve symptoms in about 60% of patients with symptomatic BPH. 5-ARIs act by inhibiting the enzyme 5α-reductase, which occurs in two forms, types 1 and 2, and converts testosterone to DHT. As DHT plays a key role in controlling prostate growth, inhibition of these enzymes causes the hyperplasia to regress. Finasteride inhibits type 2 5 alpha-reductase and reduces prostate volume by about 20%, improving both symptom scores and peak urine flow rate. Unlike α_1-blockers, finasteride may prevent the progression of BPH. Dutasteride is a dual 5α-reductase inhibitor and produces greater suppression of DHT than finasteride. Combination therapy with an α_1-blocker and a 5-ARI is more effective than monotherapy in terms of symptom relief and prevention of progression.

More than 90% of surgical procedures for BPH are still carried out by TURP. Symptoms are improved in about 70–90% of patients. The main drawback of TURP is the risk of bleeding, either during the operation or afterwards.