The ABCs of BPH

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Practice tip

The suggested tests represent the minimum evaluation and other, more sophisticated studies (*e.g.*, cytourethroscopy, urodynamics, *etc.*) may be required, depending on individual circumstances.

Point #1

While there is some controversy as to the best manner to initially evaluate a man presenting with benign prostatic hyperplasia (BPH), an evaluation of symptom severity and bother is essential. This may be done through informal questioning or use of a formal symptom score. The information gathered will be used to assess the need for intervention and as a baseline against which to compare future changes.

Initial evaluation should include...

- Medical history of past & current illnesses.
- Prior urethral injury, infection or instrumentation.
- Physical exam, including digital rectal examination.
- Urinalysis to rule out other diagnoses.
- Prostate-specific antigen in patients who have at least a 10-year life expectancy and presence of prostate cancer would change management.

Point #2

The traditional approach to men with BPH focused on improvement in lower urinary tract symptoms (LUTS). While an important short-term goal, there is a growing appreciation that BPH is a progressive condition that can lead to serious long-term problems, such as renal failure, bladder stones, urinary tract infections, hematuria and urinary retention. Longer-term goals need to be addressed.

Long-term goals

- Prevention of progression and complications
- Preservation of quality of life
- Minimization of adverse side-effects of treatment
- Optimization of cost effectiveness

Predictive risk factors (progressive clinical BPH)

- Increasing age
- Prostatic enlargement
- Elevated prostate-specific antigen
- Lower urinary tract symptoms
- Decreased urinary flow rate

Point #3

Many patients can achieve improvements in LUTS by implementing simple changes in lifestyle, such as:

- timed voiding;
- reductions of tea, coffee and alcohol;
- elevation of legs prior to retiring;
- fluid restriction; and
- avoidance of some drugs (*e.g.*, decongestants).

Good to know

- There is a lot of interest in phytotherapeutic agents and, although there are no convincing, well-designed studies confirming efficacy, there is also no evidence to show they are harmful.

Treatment tip

- 5α-reductase inhibitors reduce the risk of developing prostate cancer by as much as 25%.

Point #4

The two types of drugs available to treat BPH include the alpha blockers, which relax smooth muscle in and around the prostate and bladder neck and improve urination through sympathetic activity blockade; and the 5α-reductase inhibitors, which reduce the level of dihydrotestosterone and improve urination by decreasing the size of the prostate. Both should be taken indefinitely, with an expectation of return of symptoms if stopped.

Treatment options

1. Alpha blockers (alfuzosin, doxazosin, tamsulosin and terazosin) work within a few days to weeks and are effective for prostate glands of all sizes with equal clinical effectiveness:
   - The latter three may require dose titration.
   - Drug choice depends on patient's comorbidities, side-effect profiles and tolerance.
2. 5α-reductase inhibitors (dutasteride and finasteride) are only useful in men with large prostates and benefit may not be apparent for several months, since it takes time for the prostate to shrink.
   - Both prevent progression of BPH and reduce the risk of acute urinary retention and need for future BPH-related surgery.
   - They have similar effectiveness and adverse-event profiles.

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Point #5

Two-drug therapy using an alpha-blocker and a 5α-reductase inhibitor activates two distinct and complementary mechanisms of action and has been shown to be the most effective form of medical therapy for BPH.

Further data analyses are ongoing to define which subgroups of patients will be the ones best served by this approach.

There is evidence that patients treated with combination therapy for six to 12 months can have the alpha-blocker successfully discontinued for at least four to 12 weeks.

Combination therapy is the most effective medical therapy for BPH

- 66% reduction in risk of BPH progression
- 64% reduction in worsening symptoms
- 81% reduction in risk of acute urinary retention (AUR)
- 67% reduction in need for invasive BPH therapy

Downside of combination therapy

- Higher up-front costs
- More adverse events
- Possible decreased drug compliance

Point #6

The investigation and medical management of men with BPH continues to evolve as we improve our knowledge of the best use of current medications alone and in combination.

Further direction is anticipated with the soon-to-be released Canadian guidelines for the management of BPH by the Canadian Prostate Health Council and the Canadian Urological Association.

References available—contact *The Canadian Journal of CME* at **cme@sta.ca**.

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