PENINSULA UROLOGY CENTER NEWSLETTER

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A NOTE FROM DR. THREATT

This is volume 2 of our newsletter; the focus will be on benign prostatic hypertrophy (BPH). This issue will provide you with current information on the evaluation and treatment of BPH from watchful waiting to surgical intervention.

EDUCATION CORNER

Lower urinary tract symptoms (LUTS)/BPH include, frequency, urgency, hesitancy, nocturia, incomplete emptying, weak urine stream, and post void dribbling. These symptoms occur in 25% of men older than 40 years of age and 33% of men older than 65 years of age.

BPH is a progressive condition. Men 60 to 69 years of age with moderate LUTS have a 13% 10 year cumulative risk of urinary retention.

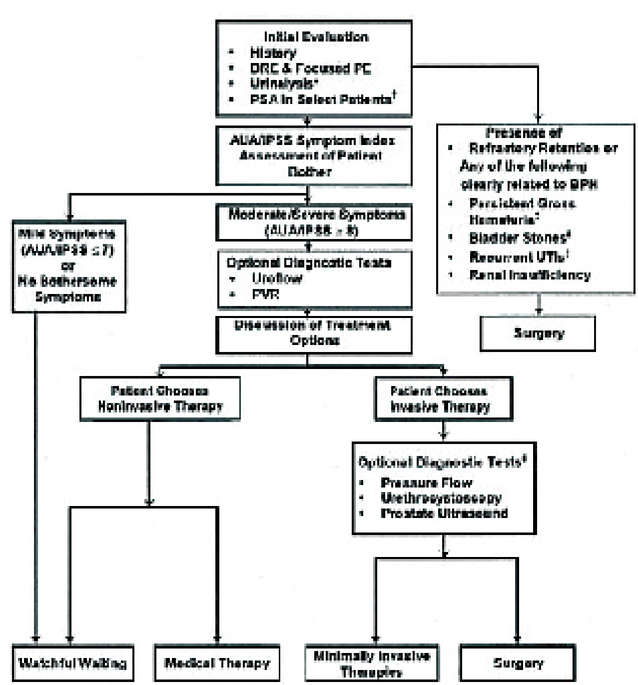
The AUA Symptom index score (same as the International Prostate Symptom Score [IPSS]) is an important part of evaluating men with BPH. It is also important in grading the progression of disease or improvement after initiating therapy. The scale is comprised of 7 questions assessing both obstructive and irritative voiding complaints, and each question is graded on a scale of 1 to 5 depending on severity or frequency. IPSS scores of 0 to 7 are classified as mild, 8 to 19 as moderate and 20 to 35 as severe lower urinary tract symptoms (LUTS).

Included in the scale is also a bother score graded 1 to 5; this allows the patient to rate the impact of the disease process on their quality of life. Patients with mild to moderate LUTS and low bother scores should be treated with watchful waiting. Patients with high bother scores and/or high AUA index scores should be considered for treatment or further evaluation.

The PSA and digital rectal exam are also important in the evaluation of men with LUTS. Recently in the medical literature the PSA has demonstrated a greater correlation with BPH. Please keep in mind that you will frequently encounter patients with low PSA's and severe BPH. The same holds true for men with very large prostates and low IPSS scores. There are now absolutes in BPH.

Men with irritative as well as obstructive symptoms should be evaluated for incomplete emptying. Use caution when prescribing anticholinergics (Detrol, Vesicare, Enablix, etc.) as these medications can result in urinary retention. Checking a urine flow rate and a post void residual is usually adequate. In diabetics and patients with neurogenic bladders (stroke, spinal cord injury) urodynamics are usually helpful in directing management.

Below is a helpful algorithm to use when managing patients with BPH.



WATCHFUL WAITING

Men with low bothersome scores who don't have a history of urinary tract infections, renal dysfunction, or urinary retention are best treated in this manner. The progression of BPH tends to be slow, and some patients will actually have an improvement in their IPSS score over time without intervention. Conservative treatment often includes decreasing fluid intake, eliminating or limiting caffeine, alcohol, salt and spicy foods.

PHYTOTHERAPY

The two most common herbals for prostate health are Serenoa repens (Saw Palmetto) and Pygeum africanum (Red stinkwood or African Plum).

A Meta analysis of randomized trials using Saw Palmetto by Boyle et al (2859 patients enrolled) showed an

increase of 2.71mls/sec in peak flow rates compared to 0.5ms/sec in the placebo arm. There was also a decrease in nocturia by 1.19 events compared to 0.69 for placebo. An older Meta analysis showed that Saw Palmetto's efficacy approached that of Finasteride (Proscar).

The efficacy of Pygeum africanum is being evaluated currently in a NIH longitudinal study (complimentary and alternative medicine trial [CAMUS]). No study to date with a placebo arm has been performed.

ALPHA-BLOCKERS

The AUA guideline committee believes that all 4 alpha blockers (Alfuzosin, Doxazosin, Tamsulosin, and Terazosin) are equally effective causing on average a 4 to 6 point improvement in the AUA symptom score. Many clinicians feel the selective alpha-blockers Flomax and Uroxatrol are more effective than the non selective. The rates of retrograde ejaculation are highest with Flomax. Uroxatral has a higher incidence of hypotension in the selective alpha-blocker group. The alpha-blockers have a short onset of action but do little to reduce the incidence of acute urinary retention. Therefore they typically loose there benefit over time in many patients.

5 ALPHA-REDUCTASE INHIBITORS

Proscar and Avodart are the 2 drugs in this class. They work best in patients with large prostate glands > 40cc. These drugs tend to take 3 to 6 months before patients see significant improvement in bother score; however their greatest benefit is in reducing the incidence of acute urinary retention.

COMBINATION THERAPY

The MTOPS study demonstrated combining an alpha -blocker with a 5 alpha-reductase inhibitor worked better than either one alone at reducing not only the AUA index score but slowing disease progression and preventing urinary retention.

MICROWAVE THERAPY

The first Microwave therapy (TUMT) was performed in 1982 for prostate cancer. In 1985 high-risk BPH patients were treated. Currently TUMT is an option at most stages of BPH. Microwave therapy works by heating the prostate adenoma while simultaneously cooling the urethra.

There are a number of devices on the market with varying efficacy. I have been fortunate to use four machines and the Prolief system dilates and heats the prostate during treatment and has provided the best results. The procedure takes 45 minutes to 1 hour in the office and requires only local anesthesia. Patients typically bring something to read or music to listen to during the procedure.

A recent study compared the gold standard TURP to microwave therapy. The TURP peak urinary flow rates increased from 9.3ml/s to 19.1ml/s. The TUMT arm improved from a pre-treatment flow rate of 9.3ml/s to 15.1 ml/s. Patient's subjective scores were also slightly better for the conventional TURP. Multiple studies have concluded that Microwave therapy is a solid option for BPH but is not equivalent to the conventional TURP. TUMT is an excellent choice for patients when pharmacotherapy has failed or is contra-indicated, and the risks and morbidity of surgery aren't desired.

TURP VS. LASER ABLATION

TURP remains the gold standard for BPH management. The introduction of the laser allows a different energy for achieving the same endpoint. The results of several prospective studies comparing Electrocautery to laser TURP showed similar efficacy. Improvement in symptom score and increased peak flow rates were equivalent. Voiding outcomes at 12 months in both modalities were comparable.

The benefits of the laser TURP over electrocautery is, reduced risk of TUR syndrome, decreased irritative voiding symptoms, less postoperative bleeding along with fewer electrolyte abnormalities. Electrocautery provides a tissue specimen for pathology along with a shorter operative time.

EMERGING TREATMENTS

Our office is conducting two clinical trials on novel therapies for BPH. One trial involves a one-time injection of medicine directly into the transitional zone of the prostate. The other trial involves a medication taken by mouth that has a new mechanism of action that addresses the prostate adenoma.

UPCOMING TOPICS

1. Incontinence
2. Hematuria
3. Renal, Bladder, Prostate, Testicular Cancer
4. Kidney Stones
5. Interstitial Cystitis
6. Prostatitis And Chronic Pelvic Pain
7. Sterilization/vasectomy
8. Erectile Dysfunction
9. Male Menopause
10. Clinical Trials in Urology
11. Recurrent UTI's
12. Infertility