Benign Prostatic Hyperplasia

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UROLOGY

Causes of symptoms

- Hyperplasia of epithelial and stromal components of prostate
- Progressive obstruction of urinary outflow
- Increased activity of detrusor muscle
- Causes
  - Frequency, nocturia
  - Poor flow , intermittent stream
  - Hesitation, terminal dribbling

Prevalence

- Men > 50 = 41% have symptoms of LUTS
- Only 18% have a diagnosis
- Only 10% aware of drugs or surgery that will help it
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Risk factors

- **Age**
- **obesity**

Differential diagnosis

- Poorly controlled diabetes
- Neurological disorders
- Urinary tract infections
- Abacterial prostatitis
- Overactive bladder
- Drugs – diuretics, anticholinergics, antidepressants
- Lifestyle factors – caffeine, alcohol, xs fluids

Abnormal symptoms

- The presence of the following symptoms indicates referral to urologist for futher assessment
  - Urinary incontinence
  - Retention
  - Dysuria
  - Haematuria
  - Acute change in symptoms

Examination

- Palpation of abdomen for
  - enlarged bladder
  - enlarged kidneys
  - constipation
- Rectal examination for
  - Size and consistency of prostate gland

Investigations

- Blood tests
  - Fbc esr
  - U&e's
  - Fasting blood sugar
  - ? PSA – level rises with increasing volume of prostate gland
- Urinalysis
  - Infection
  - haematuria

Specialist investigations

- Uroflowmetry
  - max flow rate and volume of residual urine after voiding – low flow rate indicates need for TURP
- Bladder pressure studies
  - pressure measurement during filling and emptying (cystometry) gives information on over/under activity of detrusor muscle and obstruction of bladder outlet. Predicts response to treatment. Use antimuscarinics for over activity and turp for bladder outlet obstruction

Specialist investigations

- Urinary tract imaging
  - Ultrasound to estimate residual urine
- Urethroscopy
  - Visual inspection of bladder and uerethra is used in dysuria or haematuria

Assesment

- A validated questionnaire using international prostate symptom scale.
- Completion gives total score of 35
  - 1 – 7 mild
  - 8 – 19 moderate
  - 20 – 35 severe
- Response to the quality of life questionnaire strong predictor or whether intervention is necessary

Management

- **Lifestyle modification**
  - **Reduce fluid intake**
  - **Stop diuretics if poss**
  - **Avoid xs night time fluid intake/caffeine /alcohol**
  - **Empty bladder before long trips/meetings**

Management

- **Treat co morbid contributing conditions**
  - **Diabetes**
  - **uti**

Management

- Drug therapy
  - Alpha blockers

    Improve bladder and prostate smooth muscle tone
    More effective than 5 alpha reductase inhibitors
    All work equally well
    Tamsulosin and alfuzosin require no dose titration

Management

- Drug therapy
  - 5 alpha reductase inhibitors

    Reduce prostate volume
    Reduces risk of prostate cancer, increases risk of high grade disease
  - Combined therapy

    Men with large prostate > 40g or PSA >4 or moderate to severe symptoms combined therapy will prevent 2 episodes of clinical progression per 100men over 4yrs. Much less effective for men with smaller prostates

Management

- Drug therapy
  - Storage problems

    Men with symptoms of urinary urgency, frequency, small, urine volumes and nocturia in the absence of serious obstructive symptoms are categorised as over active bladder
    Bladder training
    Biofeedback
    Antimuscarinic drugs (oxybutinin, tolteridine) alone or in combination with treatment for obstructive symptoms

Management

- **Surgery**
  - **TURP**
    - **Greatest improvement in symptoms**
    - **5% severe haemorrhage risk**
    - **Requires GA**
  - **Alternative energy sources for TURP**
    - **Ultrasound**
    - **Laser**
    - **microwave**

Management

- Surgery
  - Adverse effects of surgery
    - Loss of ejaculation
    - Erectile dysfunction
    - Retrograde ejaculation
    - Incontinence
    - Stricture formation
    - Urinary retention

Thank you for your attention