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Urinary Incontinence

- Urinary Symptoms
  - Filing / storage symptoms
    - Nocturia
    - Urgency
    - Urge incontinence
    - Frequency
  - Voiding symptoms
    - Poor stream
    - Terminal dribbling
    - Strangury
    - Hesitancy
    - Going twice (Pis en deux)
- Prostate Cancer
  - 2nd commonest malignancy
  - Incidence: rises with age (80% in over 80s)
  - Associations: increased testosterone, family history
  - Spread: local via nodes (seminal vesicles, bladder, rectum) or haematogenously (bony lesions)
  - Symptoms: asymptomatic, nocturia, hesitancy, poor stream, terminal dribbling, urinary obstruction (weight loss +/- bone pain suggests mets)
  - Diagnosis: increased PSA (although normal in 30% of small cancers and raised in benign prostatic hypertrophy), transrectal ultrasound and biopsy
  - Treatment
    - Local disease options: radical prostatectomy, radiotherapy, hormones, transurethral resection (where there is obstruction)
    - Metastatic disease: hormonal drugs may give benefit for 1 - 2 years - gonadotrophin releaseing analogues
  - Prognosis
    - 10% die in 6 months; 10% live greater than 10%
    - Gleason grading (from 1 to 5) determined by two histology samples; added together to give Gleason score - the higher the score the more aggressive the tumour and treatment
- Benign Prostatic Hypertrophy
  - Common: 24% 40 - 64; 40% 65+
  - Decreased urine flow associated with frequency, urgency, and voiding difficulty
  - Management: assess severity of symptoms and impact upon life; rule out cancer with PSA (before PR, as PR can increase PSA levels) and transrectal ultrasound +/- biopsy
  - Treatment Options
    - TURP (transurethral resection of the prostate): common operation, 14% become impotent
    - TUIP (transurethral incision of the prostate): less destruction than TURP with less risk to sexual function; relieves pressure on urethra
    - Retropubic prostatectomy
    - Transurethral laser induced prostatectomy
    - Drugs: useful in mild disease
      - Alpha blockers: decrease smooth muscle tone; drug of choice; side effects (drowsiness, depression, decreased BP)
      - 5 alpha reductase inhibitors: reduce testosterone conversion to dihydrotestosterone; excreted in semen (caution females); side effects (impotence, decreased libido)
    - Phytotherapy: pharmo use of plants; poorer efficacy than drugs
    - Wait and see: risks incontience, retention and renal failure
- UTIs
  - Risk factors
    - Female, sexual intercourse, pregnacy, menopause
    - Immunosuppression, DM, catheter, tract obstruction
  - Organisms
    - E-Coli is the main organism in the community and hospital
    - Also staphylococcus and proteus mirabilis
  - Symptoms
    - Cystitis
      - Frequency, dysuria, urgency, haematuria, supra pubic pain
    - Acute pyelonephritis
      - Fever, rigors, vomiting, loin pain, tenderness
    - Prostatitis
      - Flu like symptoms, low back ache, few urinary symptoms
  - Treatment
    - Drink plenty; urinate often
    - Local antibiotic policy
      - Cystitis - trimethoprim,
      - Acute pyelonephritis - cefuroxime
      - Prostatitis - ciprofloxacin
- Male Incontinence
  - Enlargement of prostate is major cause
  - Urge incontinence or dribbling may result from partial retention of urine
  - TURP and other pelvic surgery may weaken the bladder sphincter and cause incontinence
- Incontinence may result from diminished awareness (confusion / sedation); occasionally incontinence may be purposeful (preventing old people's home admission) or due to anger
- Female Incontinence
  - Functional Incontinence
    - Physiological factors are unimportant
    - Patient is caught short - too slow to find toilet due to immobility or unfamiliar surroundings
    - Management
      - Practical continence service support
  - Stress Incontinence
    - Leakage of urine due to incompetent sphincter
    - Typically occurs when intra-abdo pressure rises e.g. coughing / laughing
    - Risk factors: increasing age, obesity
    - Key to diagnosis: loss of small but frequent amounts of urine
    - Examine for pelvic floor weakness / prolapse
    - Common in pregnancy and following birth; occurs to some degree in 50% post menopausal women
    - Management
      - Pelvic floor exercises
      - Intravaginal electrical stimulation (often not acceptable to patients)
      - Duloxetine
        - New treatment 40mg bd
        - S/E: nausea
      - Surgical options
  - Urge Incontinence
    - Overactive bladder syndrome
    - Mainly seen in hospital practice
    - Urge to urinate, quickly followed by uncontrollable and sometimes complete emptying of the bladder as detrusor contracts
    - In the elderly usually related to detrusor instability or organic brain damage (Pd, stroke, dementia)
    - Other causes: UTI, DM, diuretics
    - Management
      - Examine for spinal cord / CNS signs
      - Incontinence chart to define pattern of incontinence
      - Maximise access to toilet; advise on toileting regime - aim to keep bladder volume below which triggers emptying
      - Consider aids such as pads
      - Drugs may help reduce night time incontinence
- Urinary Retention
  - Acute
    - Bladder usually tender, with 600ml of urine
    - Causes: prostatic obstruction, drugs induced, constipation, pain, anasethetics, alcohol, infection
    - Examination: abdo, PR, rule out cauda equina compression
    - Aid voiding: analgesia, privacy on hospital wards, ambulation
    - If aids fail catheterise; after 7 days TWOC
  - Chronic
    - More insidious; bladder capacity may be > 1.5L
    - Presentation: overflow incontinence, acute on chronic retention, lower abdo mass, UTI
    - Causes: prostatic enlargement, pelvic malignancy, rectal surgery, DM, CNS disease
    - Only catheterise if there is pain, UTI, or renal impairment
    - Institute definitive treatment promptly; intermittent self catheterisation may br required