Statistics

• Operative mortality 0.2 per cent
• Most common cause of death was sepsis which occurred >1 month after surgery
• 77% of patients had significant pre-existing disease
• Post operative morbidity of 18%
Bleeding

- Defined as those requiring transfusion
- Intraoperative bleeding - 2.5%
- Postoperative bleeding 3.7%
- Average blood loss 250 - 400 mls
- Bleeding related to size of gland and length of surgery ie greater than 90 min (7.3% vs 0.9%) and greater than 45 gms (10% vs 0.9%)
Bleeding

- Arterial bleeding a problem - requires surgical correction at the time or take back
- Venous bleeding difficult to stop surgically occurs at the end of the procedure and due to venous sinuses being opened
- Can be controlled by catheter traction
  - Inflate balloon to 50 ccs
  - Ten minutes at a time
  - Can be left on continuous traction for up to 24 Hrs.
Bleeding

• In some circumstances - especially after resection of prostatic carcinoma - can get DIC - use of Amicar (Epsilom amino caproic acid)

• Must make sure complete evacuation of clot in bladder (cf haemolysins)
TUR Syndrome

- Rise in patients BP, decrease in pulse, mental confusion, nausea & vomiting
- Can lead to cardiac arrhythmias and death
- Due to dilutional hyponatremia
- Related to:
  - Size of gland 45 gms (1.5 vs 0.8)
  - Resection time 90 min (2% vs 0.7%)
  - Surgical experience - deep exposure of capsule and opening venous sinuses
TUR Syndrome

• Usually do not become symptomatic until serum sodium < 125 mmol/l
• Generally corrected with N saline and lasix sometimes have to give hypertonic 2N or 3 N Saline plus lasix (must be accompanied by a diuretic to avoid pulmonary oedema)
Incontinence

• Post operative incontinence occurs in 1.7% of patients with 0.4% having total incontinence

• Source of many malpractice suits

• 2 sphincter mechanism internal and external
  • Internal Sphincter always removed
  • External Sphincter controls continence (at level of Veru)
Incontinence
Incontinence

• Three things are important in post operative incontinence.
  – Sphincteric injury
  – Detrusor Instability
  – Residual obstruction which impairs external sphincteric mechanisms

• Rely on internal Sphincter and Distal sphincter may become lax - Pelvic floor exercises
Incontinence

• If patients remain incontinent after a few weeks with pelvic floor exercises:-
  – Urodynamics - diagnose instability / Genuine Stress incontinence / bladder outlet obstruction
  – Cystoscopy to look at obstructing apical adenoma

• Incontinence persists for 1 year options:-
  • AUS
  • Contagen or macroplasique
  • ? Protrac device
Retention

- 6.5% of patients fail to void after TURP
- 50% of these have hypotonic bladder
- Risk factors for hypotonic bladder:
  - Painless urinary retention vs painful retention
  - Long history of prostatism
  - Neuropathic bladder ie diabetics
  - Known high residuals
- Cannot predict which patients will void after TURP
Retention

• If fail to void after surgery need to perform Urdynamics (Hypocontractile vs Obstructed)
• Better to leave SPC on free drainage to give bladder a chance to recover then repeat Urodynamics - if no return of function leave SPC on Staubli valve or teach ICSC
• Consider patients voiding successfully even if have high residual as long as they are free of infection and void with low bladder pressure
Erectile Dysfunction

• Variously quoted 4 - 40 %
• Due to nerve injury by current leak to cavernosal nerves
• Retrograde ejaculation in 100 % of men permanent
Vesical Neck Contracture

- Incidence about 2.7 %]
- Why ? Small glands which have bladder neck hypertrophy ? Over coagulation at bladder neck region ?
- If prominent Bladder neck at end of procedure, consider a bladder neck incision
- In some instances all you need in BNI (6 0’ clock vs 5 & 7 0’ clock )
Urethral Stricture

- Incidence 2.5%
- Related to the length of time IDC in before TURP
- After TURP most important cause is trauma from resectoscope
- Most common site is external urinary meatus or navicular fossa
Infection

• Preoperative UTI was found in 11% of patients
• Postoperative rate of 2.3%
• Role of prophylactic antibiotics remains controversial
• Generally Cephalosporin given with induction and oral antibiotics given until 3 days after catheter removal. Take catheter out early
Infection

• Reduce infection by:
  – Closed catheter drainage system
  – Use of pumps to break up clot rather than Toomey syringes
  – Take catheter out as soon as possible

• Pyuria and microscopic haematuria can occur for up to 6 months after surgery
Post Operative Instruction

• Can get secondary bleed 10-14 days post op - as long as you can void generally settles by 24-48 hours
• Avoid Constipation. 1 tsp nulax nocte straining---> secondary bleed
• Need 6 weeks off work
• Sexual activity after 6 weeks
• Gradual physical activity to normal by 6 weeks
• Drive car at 6 weeks (sit on prostate)
• Wont be happy with waterworks for up to three months
Post Operative Instruction

• First symptom to improve is the flow rate, then daytime frequency will improve finally nocturia will improve but may take 6 months
• Penile tip pain after voiding common until prostatic cavity re epithlealises
• Flow rate may decrease from that immediately after surgery
• Recomence NSAID or aspirin after 4 weeks
Controversies

- Stopping Aspirin before operation
- Length of time to stop aspirin preop
- Use of Calciparine and Calf compressors intraoperatively