# TURP Complications & Treatments

G. Testa

# 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 arrythmias 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

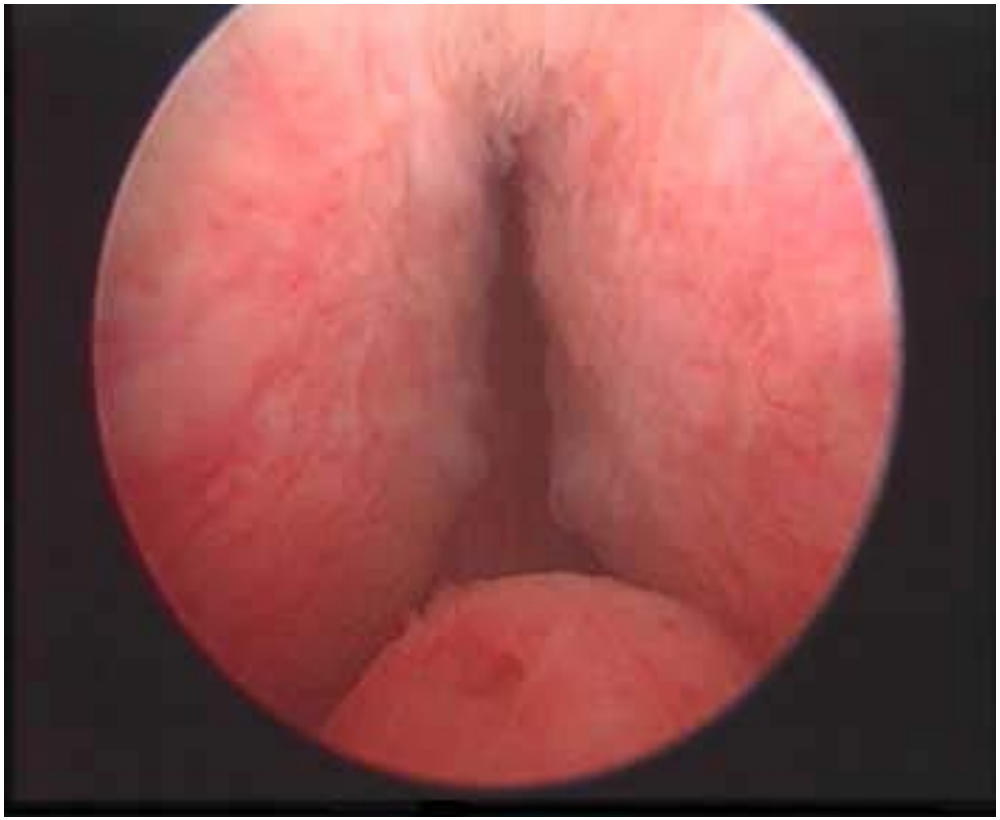
# TUR Syndrome

- 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 odema )

# 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

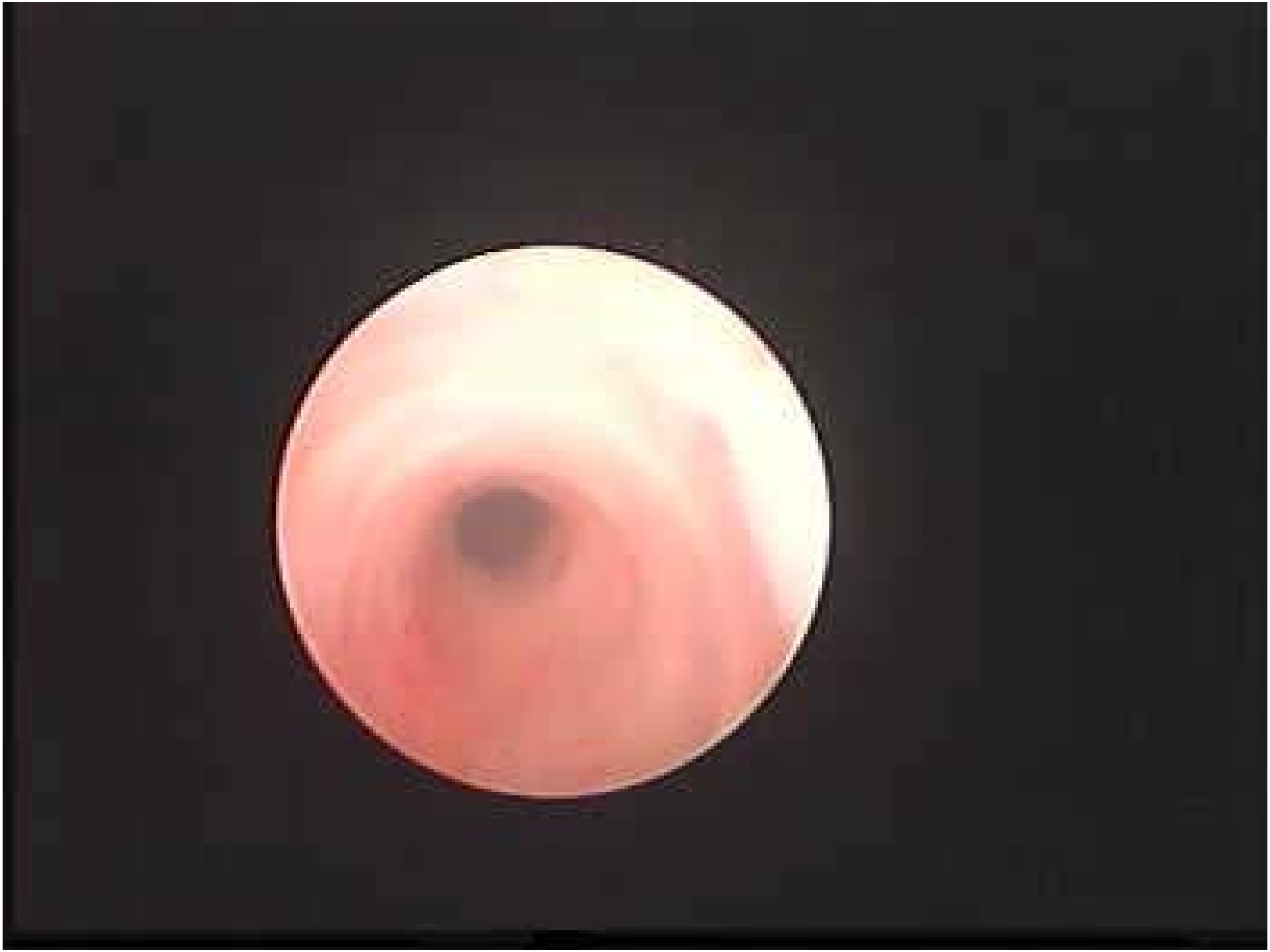
- Variously quoted 4 - 40 %
- Due to nerve injury by current leak to cavernosal nerves
- Retrograde ejaculation in 100 % of men permanent

# 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
- Recommence 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