EMERGENCIES

- 1.5 / 100,000 Populations
- 2 - 3% of those presenting to Emergency
- Most could be tackled by General Surgeons
- Ureteric colic is one of the most severe pain known
## Retention of Urine

### MEN / WOMEN / BOTH

<table>
<thead>
<tr>
<th>MEN</th>
<th>WOMEN</th>
<th>BOTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bladder Outflow Obstruction</td>
<td>Pelvic Prolapse [Uterus / Cystocele / Rectocele]</td>
<td>Blood Clot</td>
</tr>
<tr>
<td>Urethral Stricture</td>
<td>Post Stress – Incontinence Surgery</td>
<td>Urethral Calculus</td>
</tr>
<tr>
<td>Acute Urethritis or Prostatitis</td>
<td>Pelvic Masses [Large Ovarian Cysts]</td>
<td>Urethral rupture</td>
</tr>
<tr>
<td>Phimosis</td>
<td>Bladder Neck Obstruction</td>
<td>Neurogenic Bladder</td>
</tr>
</tbody>
</table>

- **Blood Clot**
- **Urethral Calculus**
- **Urethral rupture**
- **Neurogenic Bladder**
- **Fecal Impaction**
- **Anal Pain [eg. After hemorrhoidectomy]**
- **Spinal anesthesia**
- **Analgesics**
RETENTION DUE TO BPH

- Postponing micturition
- Bleed inside Prostate
- Infarctions / Infection

Putting in a Foley's catheters should suffice. Trial of void could be tried after few days.
Inability to pass Foley's catheter

TEMPORARY MEASURE
- Drain bladder with Spinal needle or any long needle.
- If possible connect to IV set to drain better
  - SPC drainage with trocar & cannula
  - Sufficiently away from pubic bones
  - Monitor Urine Output
Loin to groin pain
Patient rolls with pain as severe as labor pain
Vomiting indicates ongoing process
Fever indicates infection
### Acute Loin Pain

#### Differential Diagnosis

<table>
<thead>
<tr>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaking abdominal aneurysms</td>
</tr>
<tr>
<td>Pneumonia</td>
</tr>
<tr>
<td>Myocardial Infarction</td>
</tr>
<tr>
<td>Twisted Ovarian cyst</td>
</tr>
<tr>
<td>Acute appendicitis</td>
</tr>
<tr>
<td>Testicular torsion</td>
</tr>
<tr>
<td>Inflamed bowel [Crohn’s disease / ulcerative colitis / diverticulitis]</td>
</tr>
<tr>
<td>Ectopic pregnancy</td>
</tr>
<tr>
<td>Intestinal Perforation / Obstruction</td>
</tr>
</tbody>
</table>

---

**Image:** Diagram showing various medical conditions related to acute loin pain.
INVESTIGATIONS
- X ray KUB
- Ultrasound examination
- Urine Microscopy, ESR, C reactive Pr

TREATMENT
- Alpha blocker = Tamsulosin
- Alkalinate urine = Sodium bicarbonate
- Antibiotics
Hematuria Surgical Causes

SURGICAL CAUSES
- Renal tumours,
- Urothelial tumours
- Prostate
- Urinary tract calculii,
- Urinary tract infection
- Urinary tract trauma,
- Inflammation and tuberculosis
Hematuria Medical Causes

- Blood dyscrasias
- Pyelonephritis
- Glomerulonephritis
- Interstitial Nephritis
- Tuberculosis
TYPE OF HEMATURIA

- Initial = Urethral causes
- Terminal = Bladder causes
- Total = Renal or vesical
- Pain may indicate stones & dysuria, cystitis

Ultrasound & KUB should be done
Ethamsylate or Transxemic acid should not be used for Prostate / Bladder bleed

3 way Foley's & wash + irrigation

Cystoscopy & wash

Bugbee electrode could be used for specific located areas

Pusher and guide wire could be used for breaking clots before wash
- Defined as erection lasting more than 4 hours
- Ischemic is painful
- Non-Ischemic is not painful
- Irreversible changes can occur if it lasts for more than 24 hours
Priapism Causes

**REVERSIBLE**
- Intra cavernous injections,
- Sickle cells,
- Leukemic infiltrations,

**IRREVERSIBLE**
- Idiopathic,
- Substance abuse
- Anti-depressants & anti HT
- Trauma & AV fistula.

RURAL UROLOGY: PRIAPISM
- Aspiration,
- Irrigation with sympathomimetics medicines like epinephrine, adrenaline, phenylephrine,
- Caverno – glandular shunts. Could use biopsy gun for creation
▪ Occurs in the elderly when they have sex with young ladies
▪ Evacuation of hematoma and suturing as soon as possible is the treatment
Torsion (Spermatic cord / Testis / Appendages)

Epididymitis / Epididymoorchitis

Torsion presents with scrotal or lower abdominal pain & dysuria and has cremasteric reflex absent & Prehn’s sign positive

Surgical treatment is necessary [fixed in Dartos pouch]
▪ Kidney is well protected
▪ 95% of the time conservative treatment should suffice
▪ Pulsatile hematoma in Ultrasound or continuing bleed warrants exploration
▪ Nephrectomy would be the easier option in rural areas
▪ Very rare with external trauma
▪ Intra-operative injuries are the most common cause (Gynecological surgeries, URS, LSCS, laparoscopic surgeries and even orthopedic surgeries can cause ureteric injuries)
▪ Ileus, fever, sepsis, prolonged drainage, flank pain, mass, ureter in HPE specimen
▪ DJ, stenting,
▪ Partial transection and anastomosis
▪ Direct U – U anastomosis,
▪ Re-implantation +/- Psoas hitch / Boari flap,
▪ Trans uretero - ureterostomy,
▪ Ileal replacement and auto - transplant and even nephrectomy
Bladder Rupture

- Iatrogenic causes (TURBT, Bx, TURP, Cystolitholapaxy, LSCS and even THR)
- Blunt or penetrating abdominal trauma
- Intra peritoneal or extra peritoneal rupture
Bladder Rupture

- Clinical triad: blood in the penis, difficulty to void and supra pubic tenderness
- Bladder drainage for a month for minor trauma
- Formal 3 layer closure & drainage for a month
- Anterior Urethral Injuries: Direct injuries, penile fracture & injuries by Foley's balloons
- Posterior Urethral Injuries are with pelvic fractures: blood in the meatus and high riding Prostate
- Type 3 is the most common [75%]
- SPC and definitive repair later
Could be life-threatening

Usually Gram negative Organisms

Urinary symptoms with fever

Cephalosporins and Aminoglycosides

ICU treatment and ionotrops might be necessary & cultures are important