Inguinal Hernias

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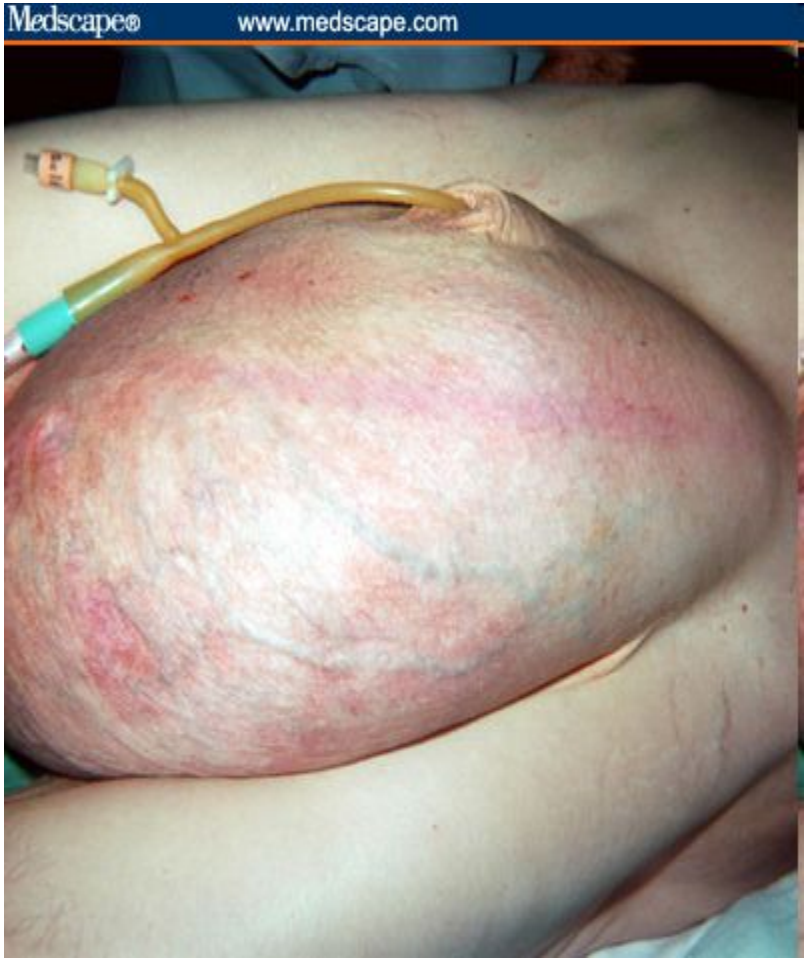
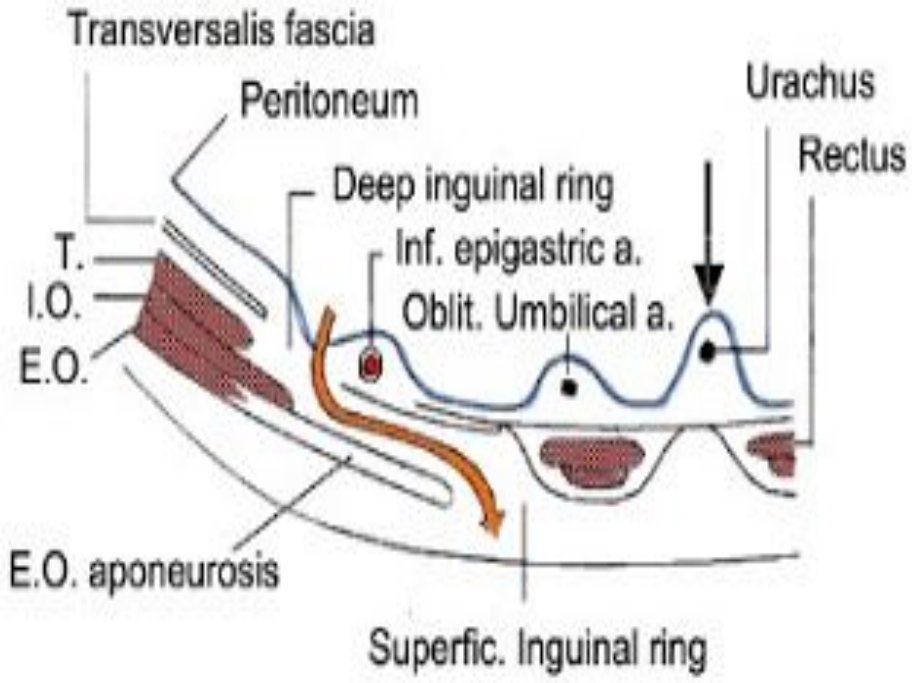
Warm up

- Indirect inguinal hernias are caused by weakness of the transversalis fascia **FALSE**
- Direct inguinal hernias are often more bilateral than indirect **TRUE**
- **Definition**
  - Protruding viscus beyond covering of the cavity in which it is normally contained



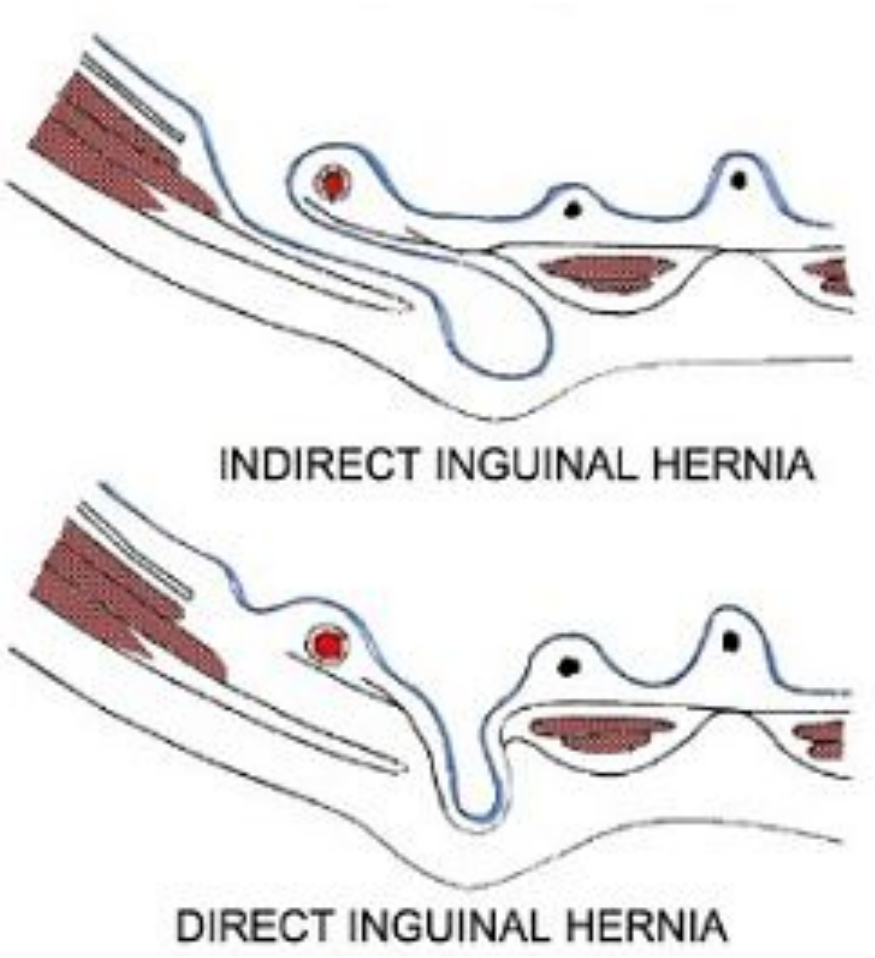
Anatomy

- Inguinal Canal
  - *Post* – transversalis fascia
  - *Anterior* – internal & external obliques
  - *Roof* – Conjoint Tendon, transverse abdominis & internal oblique
  - *Floor* – inguinal ligament



Types

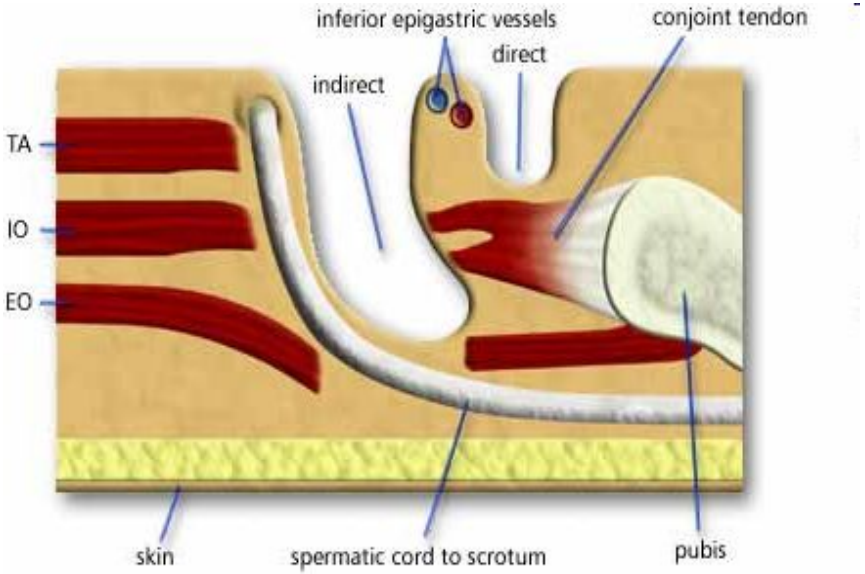
- >♂ (descent of testes)
- **Indirect**
  - due to patent processus vaginalis, 70% all inguinal hernias
  - Lateral to inferior epigastric vessel
- **Direct**
  - weakness posterior wall, can be often B/L
  - Medial to inferior epigastric vessel



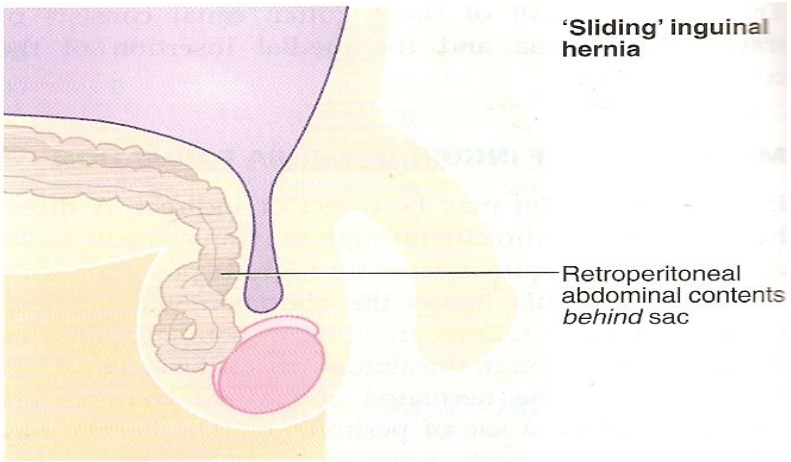
Types

- **Pantaloon**
  - Indirect & direct at same time
  - Tend to be in the elderly

- **Sliding**
  - Sometimes retroperitoneal structure slides down posterior abdo wall & herniates into inguinal canal taking along overlying peritoneum with it



Combination of indirect and direct hernias, with two sacs separated by the inferior epigastric vessels



Types

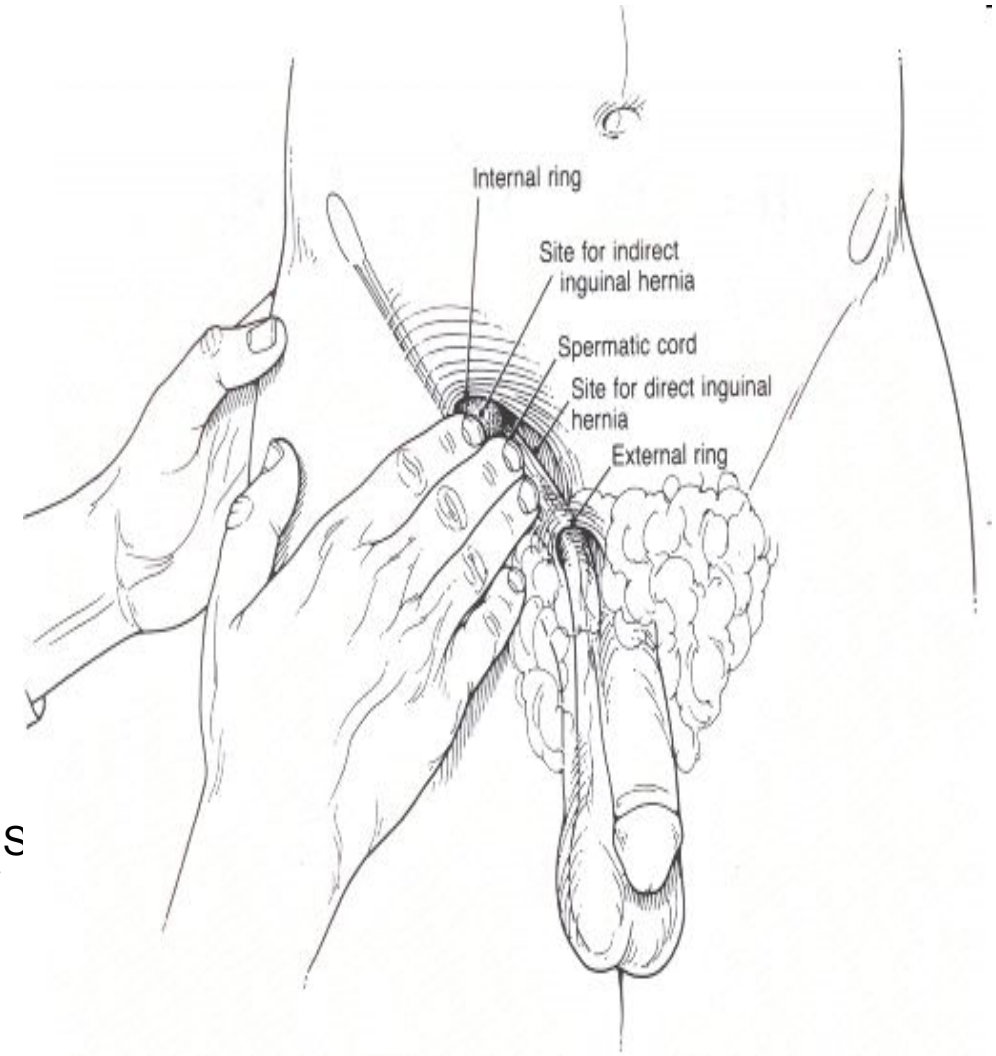
- **Incarcerated**
  - A chronically irreducible hernia which is not strangulated

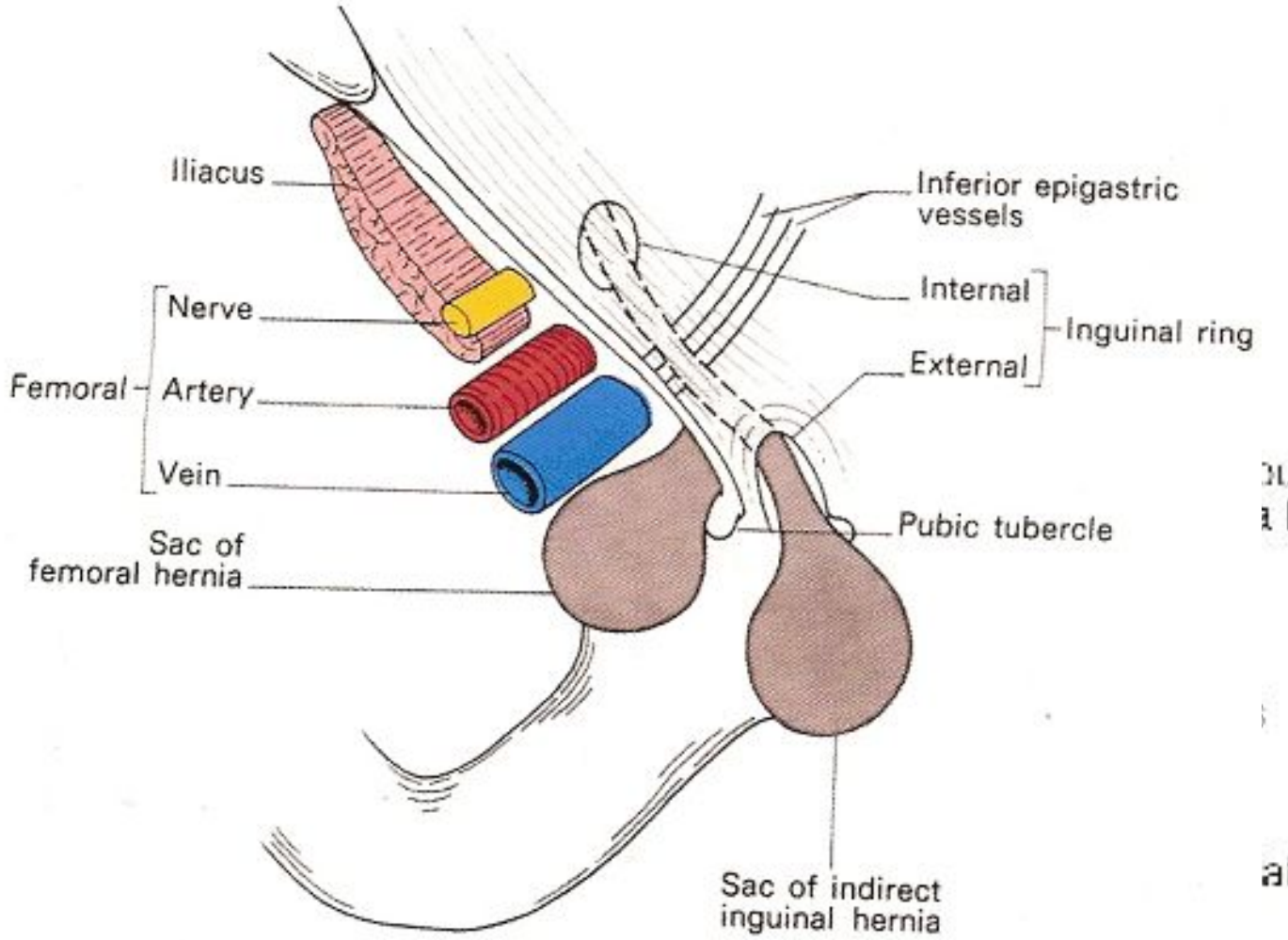
- **Strangled**
  - Tends to occur with indirect hernias.
  - Hernia contents become constricted by the narrow deep ring or they twist.
  - Venous return obstructed, swelling appears, arterial obstruction & infarction soon follows.
  - Associated with Sx & Sx of bowel obstruction & peritonitis

Inguinal Hernias

- **Examination**
  - Supine & standing
  - Palpate landmarks
  - Ask pt to cough
  - Characteristics of lump
    - Reducible / compressible
    - Pulsatile, expansile
    - Hot, tender
    - Smooth, irregular
    - Soft, hard
    - Cough impulse

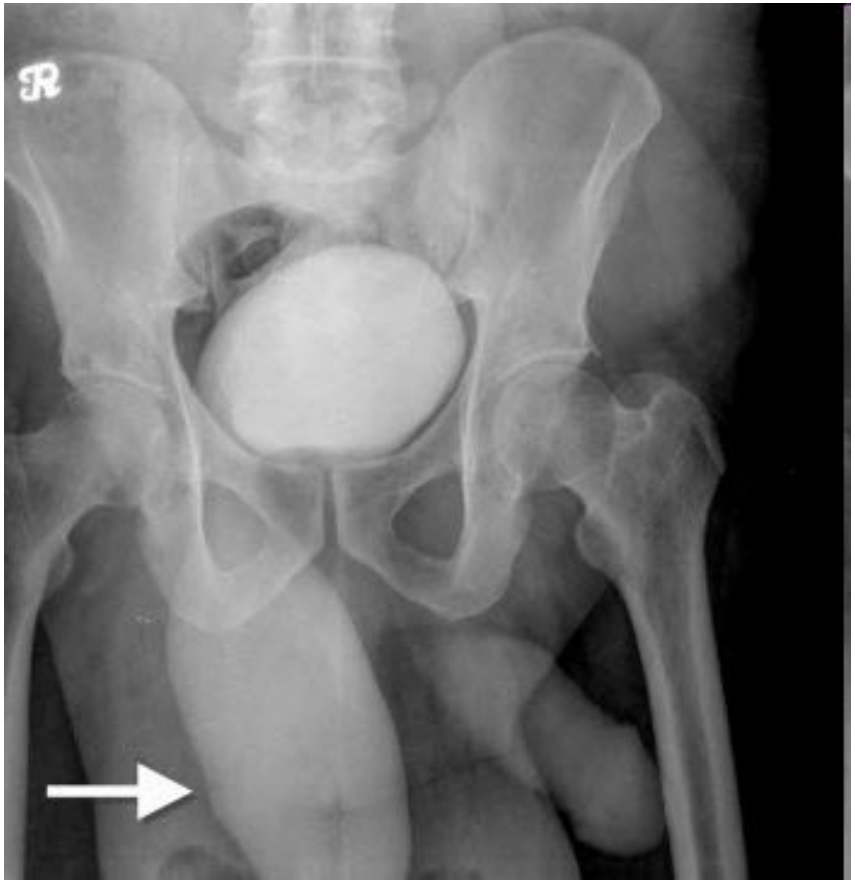
- **Surface landmarks**
  - ASIS & pubic tubercle – inguinal ligament lies b/w
  - Deep ring 2cm above midpoint of inguinal ligament
  - Mid inguinal point is ½ way b/w ASIS & pubic symphysis – femoral artery
  - Superficial ring is 2cm above & medial to pubic tubercle




Iliacus
Inferior epigastric vessels
Internal
Inguinal ring
External
Nerve
Femoral
Artery
Vein
Pubic tubercle
Sac of femoral hernia
Sac of indirect inguinal hernia

Investigations

- Underlying diseases such as chronic respiratory problems, constipation, urinary issues
- Herniography
  - Not commonly used – dye into peritoneum
- CT – rare hernias



Management & Indications for Surgery

Open Inguinal Repair

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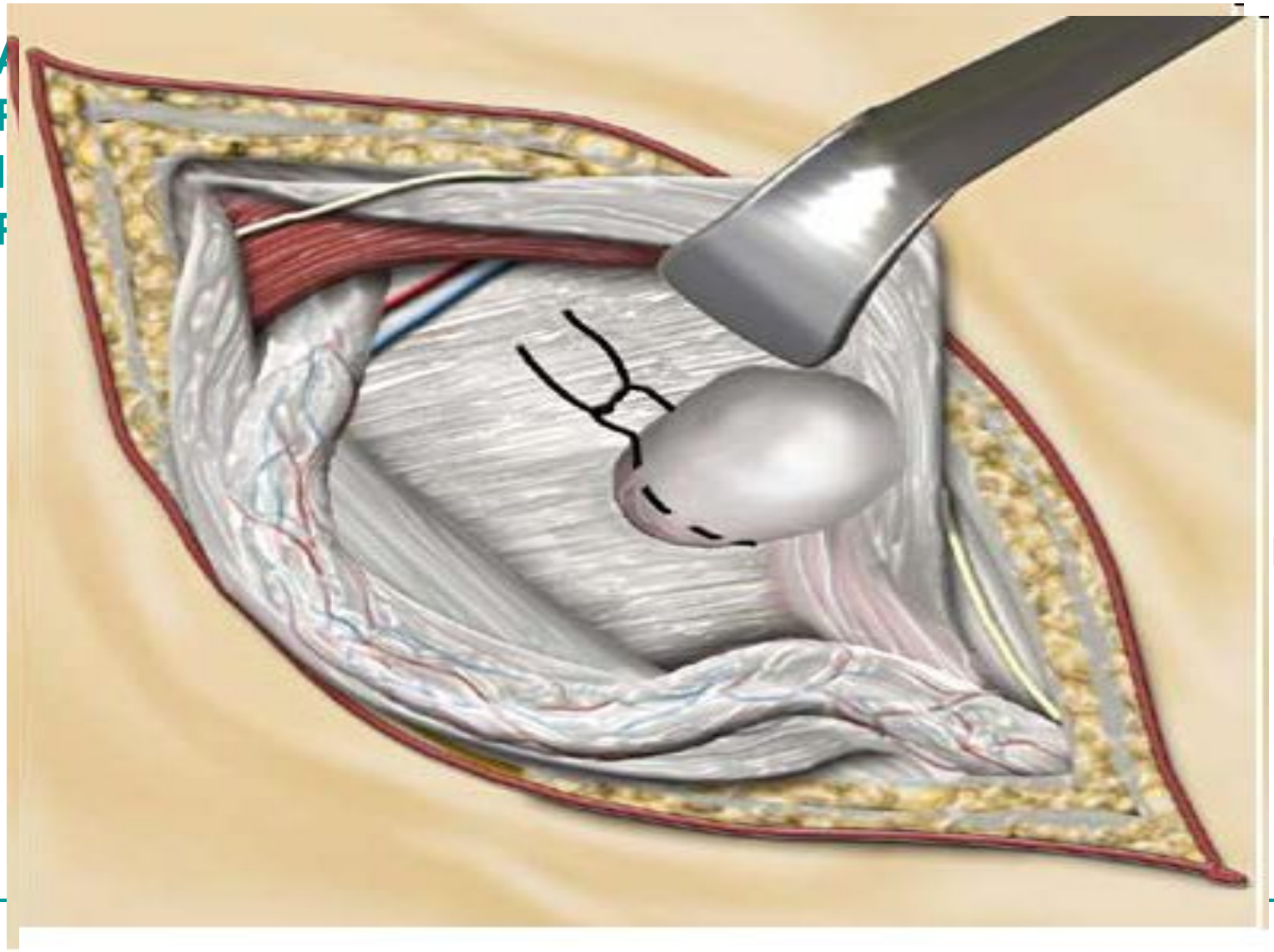

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Open Inguinal Repair

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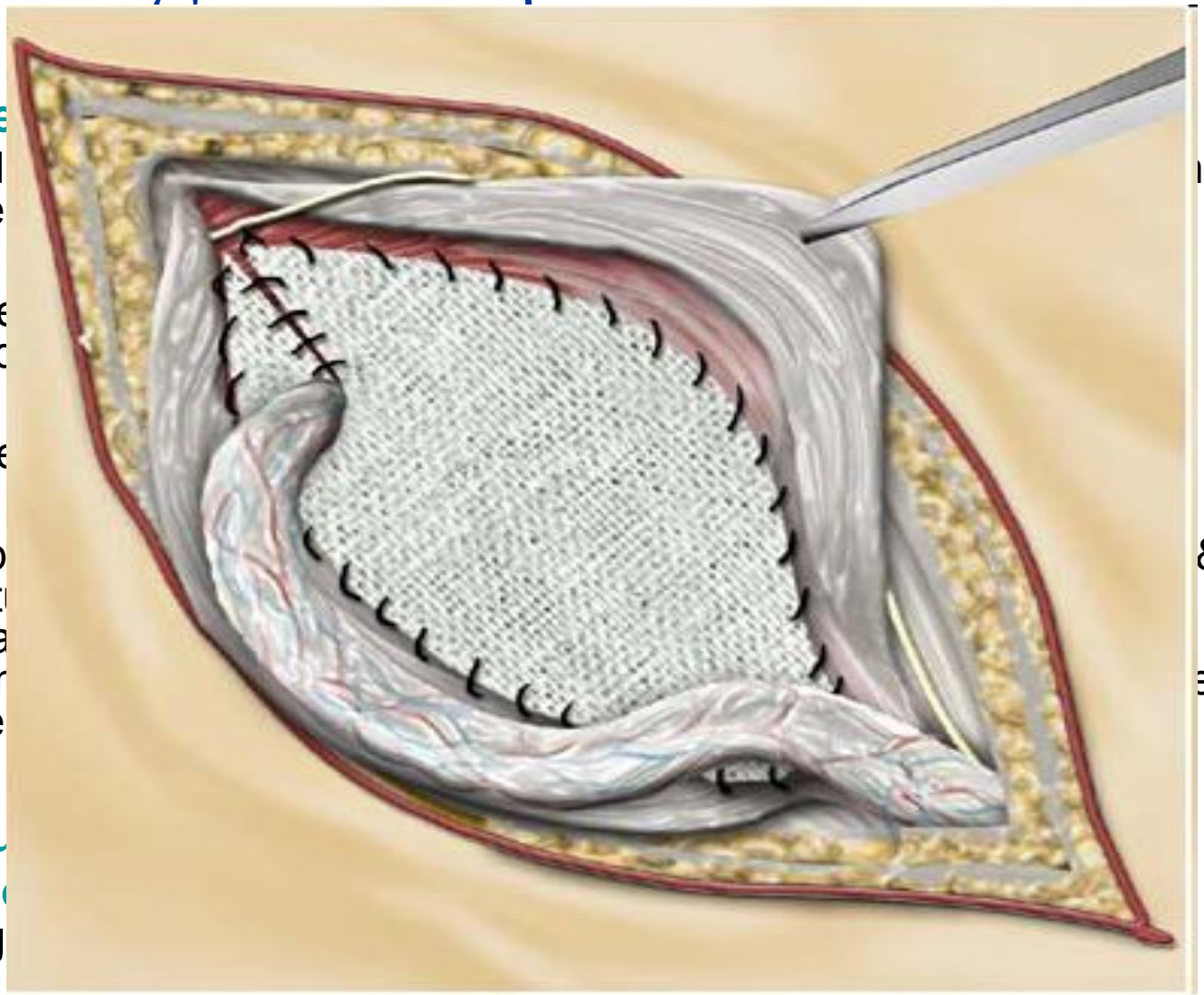
- **Closu**
- **Post** … ilioing



Laparoscopic

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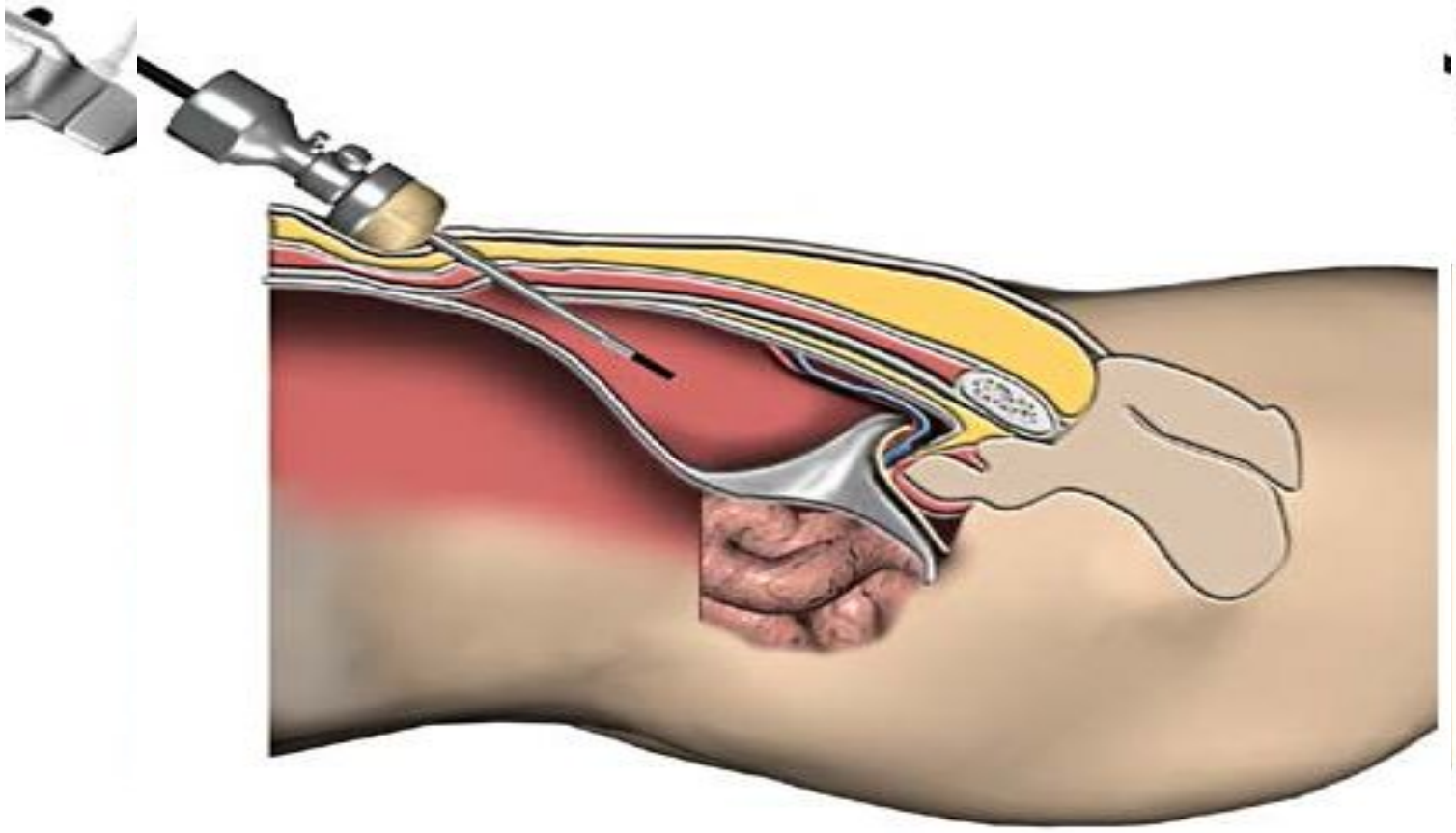

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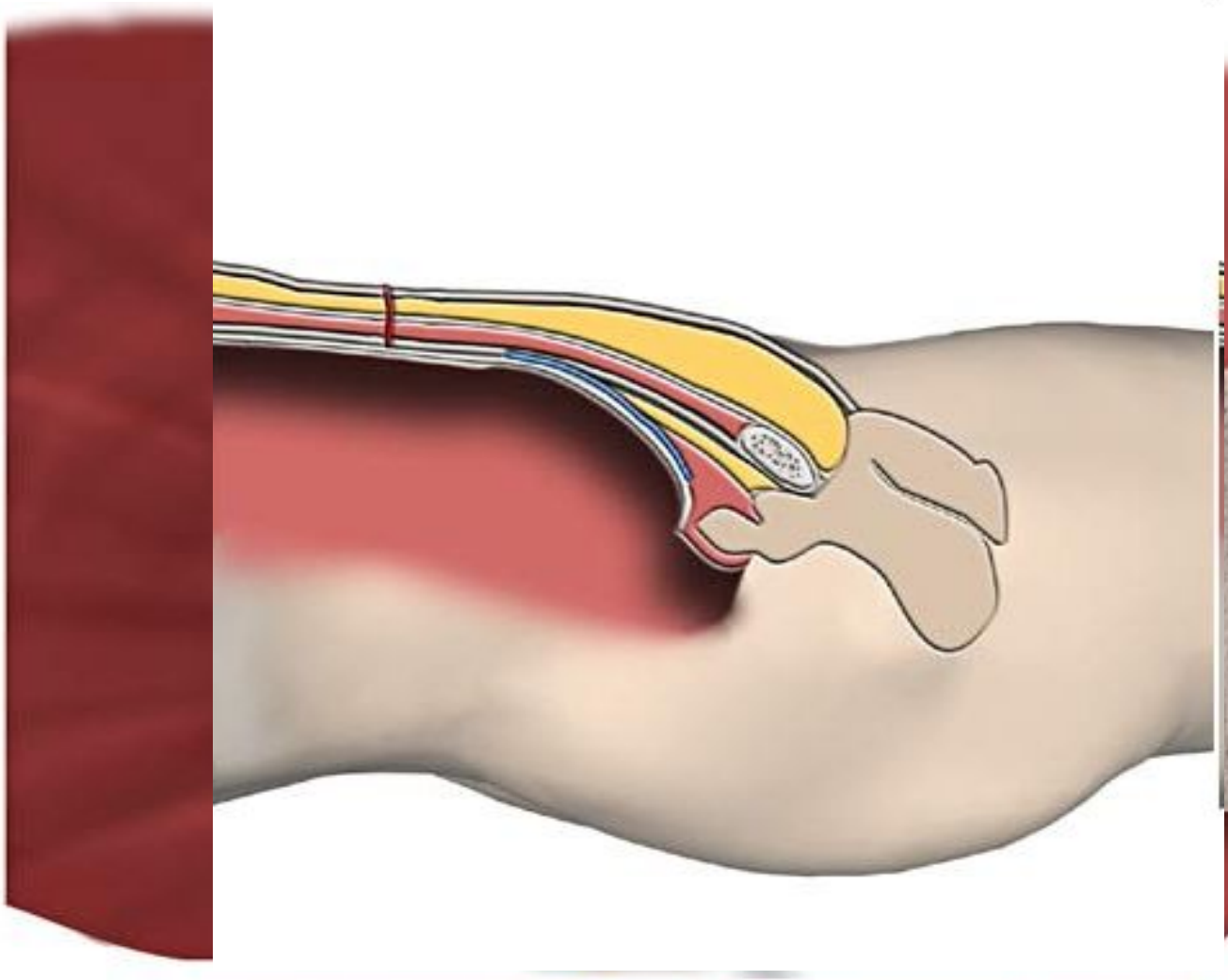
Laparoscopic



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Complications of Op

- Infection
- Bleeding
- Recurrence
- Urinary retention
- Testicular atrophy
- Neuropraxia / nerve entrapment