**Operative approaches in Inguinal Hernia**

Surgical Approach: Open Mesh Repair of Elective Inguinal hernia

* “Gold standard”

1. Skin incision over the inguinal canal for exposure of the pubic tubercle
2. Cord structures are dissected from the cremasteric muscle and trasnversalis fascia fibers and retracted off the inguinal canal floor
3. Mesh secured inferiorly to the shelving edge (author uses prolene) and superiorly to the rectus sheath and internal oblique muscle (with absorbable running suture)
4. Internal ring is reconstructed by suturing the two leaves of mesh together
5. Spermatic cord is returns to its original position and the aponeurosis of the external oblique is reapproximated
6. Check testicles to make sure still in proper position (ie. Pull down testicles)

Surgical Approach: Open Mesh Repair of Incarcerated Hernia

* Anesthesia: local, spinal or general
* Positioning: reverse Trendelenberg
* Key steps:

1. Groin incision 6-8 cm in size above or parallel to inguinal ligament
2. Excise external oblique aponeurosis
3. Preserve ilioinguinal nerve
4. Mobilize flaps of external oblique
5. Reduce hernia contents
6. Encircle spermatic cord with Penrose
7. Identify sac of the anteromedial aspect

* Open sac of of indirect hernia
* Free sac of surrounding attachments of direct hernia

1. Tack mesh medially to laterally
2. Avoid narrowing of neo-internal ring
3. Ensure hemostasis
4. Close in layers

Surgical Approach: TEPP

1. Infraumbilical skin incision and anterior rectus sheath allowing the posterior rectus sheath to remain intact
2. Sweep aside rectus muscles
3. Blunt dissecting balloon is placed directed down to the pubis
4. Two 5-mm trocars are placed in the lower midline between the rectus muscles
5. Identify critical anatomical landmarks: inferior epigastrics, Cooper’s ligament, ileopubic tract
6. Reduce hernia contents and separate from cord structures
7. Position mesh – medial to lateral under the cord structures to ascertain coverage of the internal ring with medial aspect tucked behind Cooper’s

Surgical Approach: TEPP of Incarcerated Hernia

1. Exploratory laparoscopy to assess viability of bowel, if negative 🡪 convert to TEP
2. Infraumbilical incision for 10-12mm port with preservation of posterior rectus sheath
3. Sweep muscles of rectus revealing contralateral side
4. Insert balloon-tipped trocar
5. Insufflate to 12 mmHg
6. Place additional midline 5 and 12 cm above the pubic symphysis
7. Clear areolar tissue from pubis
8. Free lateral attachments
9. Skeletonize cord structures
10. If direct: reduce sac and preperitoneal fat from internal ring gently
11. If indirect: mobilize sac and reduce into peritoneum
12. Place mesh to cover direct, indirect and femoral hernias
13. Tack mesh medial to pubis
14. Ensure peritoneal edge is free from entrapment under mesh

Surgical Approach: TAPP

1. Insufflation with placement of Veress needle
2. Port placement: 11-mm supraumbilical port, and R and L periumbical/midclavicular 5-mm ports

* Alternative: both 5-mm ports on c/l side

1. Incision of the peritoneum along the ipsilateral medin umbilical ligament
2. Development and entrance into the preperitoneal space.
3. Dissection laterally at Borgo’s space and medial to deep inguinal and femoral region

* Avoid injury to corona mortis (veins between inf epigastirc and obturator located inferior to Cooper’s)

1. Reduction of contents of the deep inguinal ring, Hesselbach’s triangle (direct hernia) and femoral space
2. Dissection of indirect hernia sac off cord structures and subsequent reduction of the sac and the cord lipoma

* Reduction with sac cephalad and posterior retraction with anterior and caudal retraction of transversallis

1. Reduce preperitoneal fat from the femoral ring
2. Extensive peritoneal dissection with parietalization of cord.
3. Placement of nonabsorbable mesh to cover the entire myopectineal orifice
4. Closure of the peritoneum