SPECIFIC HERNIA TYPES

Inguinal hernia

The inguinal hernia, often referred to as a ‘rupture’ by patients,is the most common hernia in men and women but much more

common in men

Indirect Inguinal hernia

. It is the commonest inguinal hernia (65%).

Occurs at any age but more common in young age.

Occurs in any sex but more common in males (20:1

due to weakness of the wall by the spermatic cord.

55% on the right side due to delayed descent of

right testis. However, it may be bilateral (12%)

Etiology

C. Congenital (Preformed) sac

Due to unoblitrated processus vaginalis or it may be obliterated by weak tissue herniates later in life.

D. Acquired (Pulsion) sac

Due to weak abdominal wall & increase intra-abdominal pressure.

Weakness of fascia transversalis & widening of the internal ring.

Occurs in adults.

The testis is separated from the sac & lies behind it

Basic anatomy of the inguinal canal

The walls of the inguinal canal

1. Ant. Wal!:

- External oblique.

- Lower lateral part of internal oblique.

2. Post. Wall:

- Fascia transversalis.

- Conjoint tendon (Medially).

3. Roof: arching fibers (internal oblique & transversus abdominis).

4. Floor: infolded surface of inguinal ligament (+ upper surface of lacunar ligament medially).

Contents - Spermatic Cord (or round ligament in females). - Ilio-inguinal nerve.

Spermatic cord

Contents

3 Arteries 3 Nerves 3 Structures

.Testicular a. .llioinguinal n. .Pampiniform plexus of veins

.Cremasteric a .Genital br. of qenitofemoral n. .Vas deferens

Artery of vas . Sympathetic ns. Obliterated processus vaginalis

Coverings

I The spermatic cord has three coverings which are derived from the penetrated layers
of the abdominal wall during testicular descent.

1. Internal spermatic fascia) from fascia transversalis (at the deep ring).
2. Gremasteric muscles) from lower border of internal oblique (overlying deep ring).
3. External spermatic fascia) from external oblique aponeurosis (at superficial ring).

Local examination

1. lnguinal or inguino-scrotal swelling.
2. Gives expansile impulse on cough.
3. Descends downwards, forwards & medially.
4. Reducible upward, backwards & laterally.
5. lnternal ring test) +ve

Clinical points

The inguinal liqament

The lower free curved border of external oblique aponeurosis between pubic tubercle (medially) & A.S.l.S. (laterally)Its lower border is attached to fascia lata (deep fascia of thigh).

Mid inquina! point

Point mid way between ASIS & symphysis pubis.

It is the surface anatomy of the external iliac artery.

Midpoint of inquinal liqament

Point mid way between ASIS & the pubic tubercle.

above it is the internal ring.

Diagnosis of an inguinal hernia

In most cases, the diagnosis of an inguinal hernia is simple and patients often know their diagnosis as they are so common. Usually these hernias are reducible presenting as intermittent swellings, lying above and lateral to the pubic tubercle with an associated cough impulse

Types of inguinal hernia

Bubonocele

Funicular

complete

Diagnostic difficulties

Confirmation of the diagnosis may not be possible when the patient describes an intermittent swelling but nothing is found on examination

If an inguinal hernia becomes irreducible and tense there may be no cough impulse. Differential diagnosis would include a lymph node groin mass or an abdominal mass. Such cases require

urgent investigation by either ultrasound or CT scan

Differential Diagnosis

1. Direct hernia
2. Dual hernia
3. Femoral hernia.
4. Varicocele
5-congenital hydrocele
6. lnfantile hydrocele of the cord.
7. Encysted hydrocele of the cord
8. Hydrocele of hernial sac.
9. Fibro-fatty lipoma of the cord

Management of inguinal hernia

Herniotomy In children who have lateral hernias with a persistent processus,it is sufficient only

to remove and close the sac.

(herniorrhaphy (Open suture repair

Bassini

Shouldice

marcy

Direct inguinal hernia

Common in old aged male (in practice, female never develop direct hernia). lt may arise in young age following appendectomy due to

. injury of ilioinguinal nerve supplying the conjoint tendon.

: 5Oo/o bilateral.

Etiology

always acquired

May due to defect in conjoint tendon, Weakness of lower abdominal wall muscles & increase intra-abdominal pressure (chronic cough & BPH)

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Treatment of direct inguinal hernia

1-treatment of precipitating factros

2-surgical repair of weak posterior inguinal wall by either mesh or shouldice

Femoral hernia

Patholoqical: protrusion of a viscus or a part of a viscus usually within peritoneal sac through region the femoral ring into the femoral canal

Clinical:

1- Reducible or gives history of reducibility

2- Gives expansile impulse on cough.

3- On the anatomical site of hernia (femoral

incidence

Higher incidence on the Rt. side (2:1).

. lt may be bilateral in 20% of cases.

. 3'd most common hernia after inguinal and incisional hernias, representin g 2Oo/o of

female hernias and 5o/o of male hernias.

. More common in females (2:1). middle-aqed (20-40 vears

Etiology

Conqenital (rare)

Acquired (it is almost alwavs acquired):

1- Raised intra-abdominal pressure (precipitating factors)

- Chronic cough.
- Obesity.

2- Weak anterior abdominal wall due to:

- Straining (e.9. constipation, prostatism).
- Abdominal swelling (splenomegaly).
- Repeated pregnancy

Clinical feature

Femoral hernia may present for the l't time with strangulation (4Ooh) especially Richterrs:

- Acute painful groin swelling + features of intestinal obstruction.
- Hernia is irreducible with no impulse on cough, tender and tense

DD of Strangulated femoral hernia

1. Acute inguinal lymphadenitis.
2. Sub-inguinal abscess (FAHM, tenderness + no abdominal symptoms).
3. Torsion in maldescended testis.
4. Rupture adductor longus tendon (history of trauma or sudden strain, ecchymosis, tenderness + no abdominal symptoms).
5. Anterior dislocation of the hip joint

treatment

Surgery is the only line of treatment (Truss is contraindicated)

Prophvlaxis: avoid predisposing factors.

Treatment of precipitatinq factors

Curative: depends on approximation of the pectineal ligament to the ilio-pubic tract via:

1- Low approach (Lockwood's).

2- lnguinal approach (Lotheissen's).

3- Pre-peritoneal (McEvedy's): suitable for uncomplicated or complicated cases.

4- Laparoscopic approach.

D- Palliative: Truss is contraindicated due to high possibility of strangulation