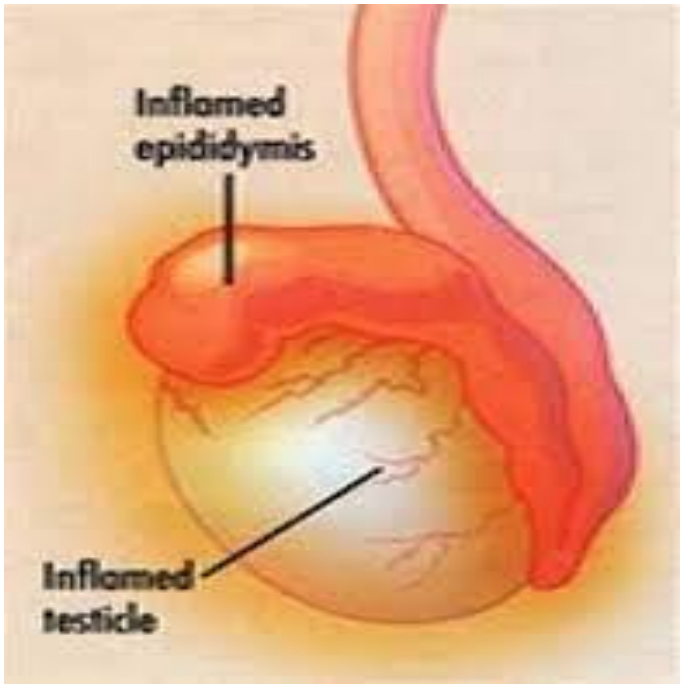
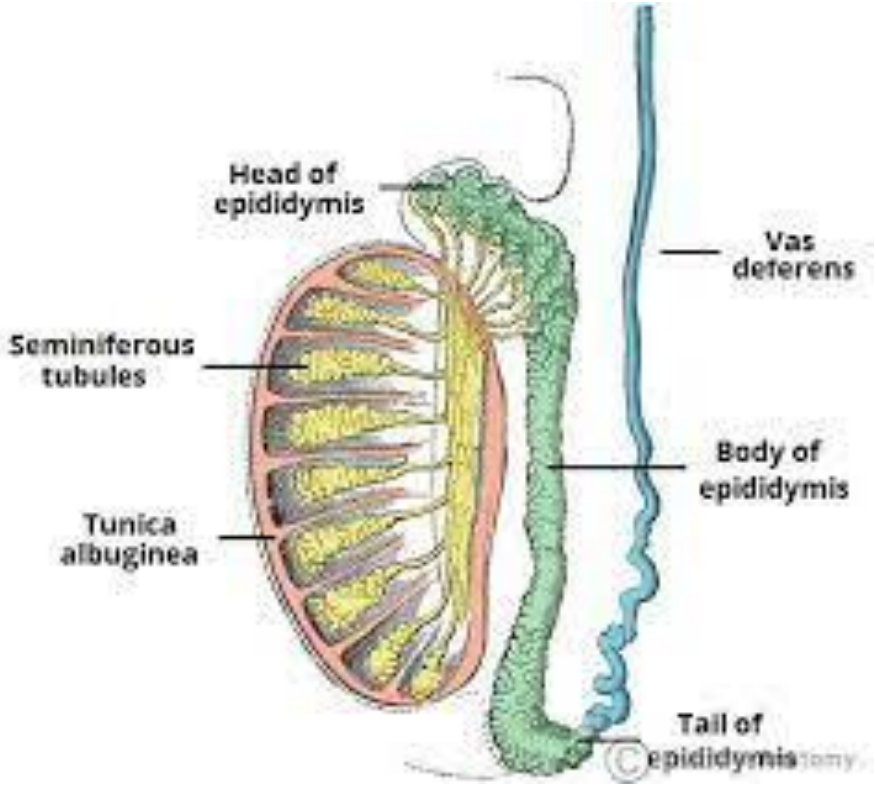
Epidydimo-orchitis



Anatomy

- The epididymis lies on the posterior aspect of the testis and is palpable as a separate structure
- Contain with a head, a body and a tail
- The seminiferous tubules enter the epididymis at the upper end of the epididymis (the head)



- From the head, sperm travel through the body and tail of the epididymis
- To enter the vas deferens at the lower pole of the testis
- The vas curves up behind the testis and can be felt above the testis - a firm tubular structure entering the external inguinal ring
- In the inguinal canal, the vas deferens is invested by the cremasteric muscle along with the other components of the spermatic cord

Acute epidydimo-orchitis

- Inflammation confined to the epididymis is epididymitis
- Infection spreading to the testis is epididymo-orchitis
- Peak incidences vary according to cause, ages 35y and >55y
- Common organisms include Chlamydia trachomatis, Neisseria gonorrhoea in the young (sexually-transmitted infections (STI))
- Escherichia coli and Proteus occur in chronic bladder outflow obstruction or urinary tract instrumentation
- One-third of male adolescents with mumps develop orchitis

Clinical features

- Gradual onset of pain (hours or days)
- Dysuria, urethral discharge, and pyrexia are common
- Tenderness and induration are localized to the epididymis and spermatic cord in epididymitis
- Cremasteric reflex is preserved
- Prehn's sign (relief of pain with scrotal elevation)

Pathology

- Infection reaches the epididymis via the vas from a primary infection of the urethra, prostate or seminal vesicles
- Epididymitis arises in sexually active young men from a sexually transmitted genital infection
- Older men it more usually arises from a urinary infection or may be secondary to an indwelling urethral catheter
- Blood-borne infections of the epididymis are less common

- Infection usually starts in the tail of the epididymis
- Spreads to the rest of the epididymis and occasionally to the testis

Complications

- Abscess formation
- Testicular infarction
- Testicular atrophy
- Chronic induration and inflammation
- Infertility

Investigations

- Urethral swab
- Urine specimen for culture
- Nucleic acid amplification testing (NAAT) of either a urine specimen or a urethral swab - sensitive way of identifying both gonoccal and chlamydial urethritis
- Scrotal ultrasound - sensitive way of
- identifying both gonoccal and chlamydial urethritis
- Urinalysis -leukocytes and may show ,a formal urinary tract infection

Treatment

- **Antibiotics**

<u>For young patients</u>

- Doxycycline (100–200 mg daily) or a quinolone
- Initial treatment
- Contact tracing of the partner and treatment if necessary
- Treatment should continue for at least 2 weeks

<u>For older patients</u>

- Quinolones
- Initial treatment

- If there is evidence of systemic sepsis – intravenous antibiotics directed at urinary pathogens
- If an organism is isolated from the urine, this simplifies the choice of antibiotic

<u>For all patients</u>

- Drink plenty of fluid
- Scrotal support
- Analgesia
- Continue for at least 2 weeks or until the inflammation has subsided
- If suppuration occurs - drainage

Chronic disease

- Chronic non-tuberculous epididymitis usually follows the failure of resolution of an acute episode of epididymitis
- Intermittent episodes of discomfort
- Epididymis feels thickened and tender

Treatment

- Antibiotics (usually quinolones or doxycycline)
- And anti-inflammatory agents
- Treatment for 4–6 weeks
- Epididymectomy or orchidectomy can be considered if there is no resolution

Tuberculous epididymo-orchitis

- Chronic tuberculous epididymo-orchitis usually begins insidiously
- Lower pole of the epididymis is involved first - infection is usually retrograde from a tuberculous focus in the seminal vesicles
- Firm, uncomfortable discrete swelling of the lower pole of the epididymis
- The disease progresses until the whole epididymis is firm and craggy behind a normal feeling testis

- Lax secondary hydrocoele in 30% of cases
- Seminal vesicles feel indurated and swollen
- In neglected cases, a tuberculous ‘cold’ abscess forms which may discharge
- Body of the testis may be uninvolved for years but the contralateral epididymis often becomes diseased
- Two-thirds of cases there is evidence of renal tuberculosis or previous disease
- The urine and semen examination repeatedly for tubercle bacilli - chronic epididymo-orchitis
- Chest radiograph
- Upper urinary tract imaging ultrasound - thickened epididymis

Treatment

- Secondary tuberculous epididymitis - Resolve when the primary focus is treated
- Treatment with antituberculous drugs is less effective in genital tuberculosis than in urinary tuberculosis
- If resolution does not occur within 2 months - epididymectomy or orchidectomy
- A course of antituberculous chemotherapy should be completed