EPIDIDYMO-ORCHITIS

Key Changes

Added comments on MHRA updated restrictions for quinolones

Caution: EXCLUDE TORSION by careful clinical examination especially if sudden onset, young (<20 yrs usually but can occur at any age): seek urgent urology opinion. This is a SURGICAL EMERGENCY – salvage of affected testis under 6 hours offers best outcome.

Clinical features

- Acute onset
- Normally unilateral scrotal pain +/- swelling
- Symptoms of a urethritis
- Symptoms of UTI

Signs

- Tenderness/swelling of epididymis
- Urethral discharge
- Erythema +/- Oedema of scrotum
- Pyrexia
- Hydrocele

Other aspects of history to consider:

- Recent urological instrumentation
- Symptoms of mumps incSC parotid swellings
- Travel history for infections including TB, brucellosis, schistosomiasis
- amiodarone use
- Behçet's disease – 12-19% of men with Behçet's develop EO

Investigations:

- Urethral smear Gram stain for GNDC (gram negative diplococci)
- Dipstick urinalysis for nitrites and leukocytes
- GC culture
- Chlamydia/GC NAAT first pass urine specimen
- *M. genitalium* urine NAAT (same sample as CT/GC)
- MSSU for MC&S bacteriology
- Full sexual health screen including syphilis/ HIV serology
- If diagnostic uncertainty/complications suspected, consider USS testes
- If EO confirmed to be caused by urinary pathogen, consider USS renal tract and referral to urology

- (TB/Mumps specific tests if indicated)

Management General:

- Rest, analgesia and scrotal support
- NSAIDs may be of some benefit
- Abstain SI until they and their partner(s) have completed treatment and PN requirements satisfied if confirmed or suspected STI
- Detailed information and explanation about their condition

Treatment:

For epididymo-orchitis probably due to STI

Ceftriaxone 1g IM stat plus
Doxycycline 100mg po bd 14 days

If most probably due to chlamydia or other non-gonococcal organism (where. microscopy negative for GC and no other risk factors for GC ie GC contact,

Doxycycline 100mg po bd 14 days

OR

<u>If Doxycycline allergy</u>: Ofloxacin* 200mg po bd 14 days

MSM, purulent discharge, multiple recent partners)

If epididymo-orchitis most probably due to enteric organisms

- (ie age >35, not sexually active, urine dipstick positive, recent urological intervention or urinary tract abnormalities)

Ofloxacin* 200mg po bd 14 days

If confirmed *Mycoplasma genitalium* infection

Moxifloxacin 400mg OD for 14 days

If recent insertive anal sex, due to the risk of enteric organisms consider

Ceftriaxone 1g IM stat plus Ofloxacin* 200mg bd for 10 days

If clinical signs of bacteraemia, consider hospital admission.

IF ALLERGY TO CEPHALOSPORINS/TETRACYCLINES – seek senior advice

Patients should be warned of possible adverse effects of treatment. These include:

	Gastrointestinal disturbance	Liver enzyme derangement	Photosensitivity skin reaction	Tendonitis/ Tendon rupture
Ceftriaxone	√	√		
Doxycycline	√	√	√	
Ofloxacin	√	√	√	√

MHRA strengthened restrictions in January 2024 stating that fluoroquinolones should only be used when other recommended antibiotics are inappropriate. While we should restrict where possible they remain first-line choice for epididymo-orchitis suspected due to enteric organisms.

*__Ofloxacin__ can enhance warfarin effect. Avoid if history of epilepsy. Caution if G6PD deficiency, myasthenia gravis and psychiatric disturbance. Discontinue immediately if signs of tendon damage. Oral iron reduces absorption of ofloxacin. Avoid strong sunlight / sunbeds with doxycycline and ofloxacin, discontinue if skin erythema.

QT prolongation: Certain medications including quinolone antibiotics cause QT prolongation and should not be prescribed with interacting medications. This is unlikely to be of clinical significance for stat doses but is important for longer courses. Please use BNF Interaction Checker to ensure these medications are safe to prescribe for your patient and discuss with a senior colleague if necessary.

Side effect risk should be discussed with patients and they should discontinue quinolones if any effect on joints, tendons, muscles or nervous system.

Follow-Up:

- Patient to call triage line for urgent care review if not improved within 3 days
- Review mild/moderate cases in 2/52 by adding to Sandyford Central health adviser telephone clinic HA SC VD.
- In severe cases, arrange 72 h follow up appointment.
- Assess adherence to PN instructions.
- Swelling may take time to disappear following treatment (complete resolution in >80% at 3 months). If no resolution, consider differential - testicular tumour / abscess / infarction / mumps / TB/ brucellosis. Consider USS and urology opinion.
- Consider more prolonged antibiotic course if clinically indicated (new or repeated sexual exposure to untreated partners)

Serology

STS /HIV as appropriate considering window periods from time of particular risk

Referral:

Refer all patients with culture proven UTI causing EO to Urology

Partner Notification:

- All patients with likely sexually acquired epididymo-orchitis should be referred to the sexual health advisers for partner notification work.
- Contacts should be treated epidemiologically if STI confirmed in index case.

References & further reading

Chirwa M *et al.* United Kingdom British Association for Sexual Health and HIV National Guideline for the management of epididymo-orchitis 2020. Int J STD AIDS 2021:32(10):884-895.

Available at https://www.bashhguidelines.org/media/1291/eo-2020.pdf [*accessed 17/09/2024]*

Patient information leaflets

BASHH UK PIL Oct 22

https://www.bashh.org/resources/51/epididymoorchitis

[accessed 17/09/2024]

BAUS leaflet on chronic epididymitis

https://www.baus.org.uk/_userfiles/pages/files/Patients/Leaflets/Chronic%20epididymitis.pdf [accessed 17/09/2024]

NICE scenarios:

Updated May 2023 – covers differentials nicely

https://cks.nice.org.uk/topics/scrotal-pain-swelling/

https://cks.nice.org.uk/topics/scrotal-pain-swelling/management/epididymo-orchitis/