MSHC
MELBOURNE SEXUAL HEALTH CENTRE

Epididymo-orchitis treatment guidelines

Epididymo-orchitis is the clinical syndrome of pain and swelling of the epididymis and testis which occurs in the context of a urethral or a urinary tract infection.

Causes

- In sexually active men aged 14 - 35, the causative organisms are most commonly *Chlamydia trachomatis* and *Neisseria gonorrhoeae*, however men who have insertive anal sex may also acquire enteric gram-negative bacteria (such as *E. Coli*)
- There is weak evidence for the causative role of *Mycoplasma genitalium*
- In younger and older age groups the causative organisms are more likely to be enteric gram-negative bacteria
- Epididymo-orchitis can also be secondary to a number of other bacterial infections (such as syphilis and tuberculosis) and viral infections (mumps) but this is seen uncommonly in our clinic

Clinical presentation

Typically there is unilateral swelling and tenderness of the epididymis which feels indurated on palpation.

In milder infections there may be no involvement of the testis while in more severe infections, or viral orchitis, the testes are also involved.

The presence of urethral or lower urinary tract symptoms, systemic symptoms and a more gradual onset helps to distinguish epididymo-orchitis from torsion of the testis, but differentiation is frequently difficult and the clinician needs to have a low threshold for referral.

Differential diagnosis includes:

- Testicular torsion
- Torsion of epididymal appendage
- Trauma
- Hydrocoele
- Epididymal cyst
- Testicular tumour

Testicular torsion is a surgical emergency which should be considered in all patients with a painful scrotum:

- It most commonly occurs in males under the age of 20 but can occur at any age
- If testicular torsion is suspected, the patient should be referred to an emergency department for **urgent** surgical assessment
- An ultrasound scan with Doppler is helpful diagnostically but should not delay surgical assessment

Diagnosis

Epididymo-orchitis is a clinical diagnosis, sometimes confirmed on ultrasound scan.

Test	Site/Specimen	Comments
NAAT	First void urine	Test for chlamydia and gonorrhoea

Test	Site/Specimen	Comments
Gram stain	Urethral swab	Perform if urethral discharge is present (for gram-negative intracellular diplococci)
Microscopy, culture and sensitivities	Mid-stream urine	-
Doppler ultrasound	Testes	A very useful modality in the diagnosis of epididymo-orchitis and to exclude torsion.- It may be used to confirm the clinical impression but it should not delay antibiotic treatment or referral to an emergency department if torsion needs to be excluded
Serology	-	Consider testing for mumps, TB if atypical infection.

Management

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Antibiotic treatment depends on the presumed source of infection and should aim to cover the most likely bacterial pathogens.

Simple analgesics, scrotal support, limitation of activity and use of cold packs can be helpful.

Patients with acute epididymo-orchitis on appropriate treatment should generally improve within 48 - 72 hours.

If there is no improvement the diagnosis should be re-evaluated or referral considered.

Condition	Recommended	Comments
Epididymo-orchitis likely caused by sexually acquired pathogen	**Doxycycline 100 mg PO, twice daily for 14 days** If suspect gonorrhoea, add **Ceftriaxone 500 mg IM, stat**	Alternative to Doxycycline: **Azithromycin 1 g PO, stat, repeated in 1 week**
Epididymo-orchitis likely caused by urinary tract pathogen	**Cephalexin 500mg PO, four times a day for 14 days** OR **Amoxycillin + clavulanate 875+125mg PO, twice daily for 14 days**	Alternative antibiotics: **Ciprofloxacin 500mg PO, twice daily for 14 days** OR **Norfloxacin 400mg PO, twice daily for 14 days**

Disclaimer

We recognise that gender identity is fluid. In our treatment guidelines, the words and language we use to describe genitals and gender are based on the sex assigned at birth.

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