Epididymo-orchitis

MANAGEMENT SUMMARY

EXCLUDE TORSION

Take history – age, sexual history, previous catheterisation or urine tract infection (UTI)?
Examination – urethral discharge?
Tests – urethral swab for gonorrhoea culture, first catch urine for chlamydia and gonorrhoea testing, AND mid-stream urine (MSU) for urinary pathogens.

STI-associated epididymo-orchitis more likely if
- < 35 years
- > 1 partner in past 12 months
- Urethral discharge present

Treatment
- Ceftriaxone 500mg im stat (make up with 2ml lignocaine 1% or as per data sheet) ***plus*** doxycycline 100mg twice daily for 14 days
- No sex until review at one week
- Partner notification

Urinary pathogen-associated epididymo-orchitis more likely if
- > 35 years
- Low risk sexual history
- Previous urological procedure or UTI
- No urethral discharge
- Positive urine dipstick for leucocytes + nitrites

Treatment
- Ciprofloxacin 500mg bd 10 days (specialist approval may be required)

Management
- Bed rest, scrotal support, analgesia

Follow-up
- Symptoms should be improving after 3 days
- Further review at 1 week
- Check laboratory results

Symptoms and signs resolved/significantly improved
- Check compliance with treatment
- Check sexual abstinence
- Ensure partner notification complete

Discharge once symptoms and signs fully resolved

MSU positive

- Renal tract ultra-sound scan (USS)
- Referral to urology

Symptoms and signs persist
- Check compliance with treatment
- Check no unprotected sex
- Ensure partner notification complete
- Review diagnosis
- Consider alternative aetiologies
- Consider testicular USS
- Consider urology referral

Partner notification

If STI cause suspected:
- Be clear about language; 'partner' implies relationship – all sexual contacts in the last 2 months should be advised so they can have a sexual health check and treatment.
- Contact(s) should have a sexual health check and if asymptomatic treat empirically for chlamydia with azithromycin 1g stat.
  - If gonorrhoea suspected in index case, add ceftriaxone 500mg im.
- Contacts should be treated without waiting for their test results; if positive, then refer to specific guideline.
- Most choose to tell contacts themselves, giving written information is helpful.
- Notifying all contacts may not be possible e.g. if there is insufficient information or a threat of violence.

Further guideline information – www.nzshs.org or phone the local sexual health service.

This Best Practice Guide has been produced by NZSHS, and is adapted from the CMDHB Best Practice Guideline.
Every effort has been taken to ensure that the information in this guideline is correct at the time of publishing (July 2012).

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Introduction

- Epididymo-orchitis = inflammation/infection of the epididymis ± the testis.
- In men <35 it is most commonly caused by STI pathogens such as *Chlamydia trachomatis* and *Neisseria gonorrhoeae*.
- In men >35 it is most commonly due to Gram negative enteric organisms causing urinary tract infection, however there is considerable overlap between these two.

Note: Also associated with urinary tract instrumentation or surgery, systemic disease, immunosuppression, Behcet's syndrome, amiodarone use, tuberculosis, mumps.

Identify the most likely causative organism based on risk factors.

- Sexually transmitted infection more likely if:
  - Aged less than 35 years
  - More than one sexual partner in the past 12 months
  - Any urethral discharge.
- Enteric organisms more likely if:
  - Low risk sexual history
  - Age 35 years or older
  - History of penetrative anal intercourse
  - Recent urological instrumentation or catheterization.

Diagnosis

- Diagnosis is clinical, with support from the results of investigations undertaken.
- Patients usually present with unilateral testicular pain ± urethral discharge and/or dysuria.
- The main differential diagnosis is testicular torsion which is a surgical emergency and requires surgery within 6 hours of onset. Consider if:
  - Sudden onset
  - Severe pain
  - Occurs more commonly under age 20.

Diagnostic tests

- Patient should ideally not have passed urine for at least 1 hour prior to specimen collection.
- Specific tests for gonorrhoea and chlamydia.
  - Urethral swab for gonorrhoea culture
  - First catch urine for chlamydia testing.

  Note: Some laboratories will perform dual testing for both chlamydia and gonorrhoea on first catch urine samples.
- Urine dipstick and MSU.
- If mumps is considered likely, then mumps IgG and IgM serology or PCR on oropharyngeal swab if available.

Note: If diagnosis unsure and torsion is suspected, urgent referral for surgical review.

Management

- If patient febrile and unwell or may be non-compliant, consider admission for bed rest, analgesia, and iv antibiotics.
- Bed rest, scrotal support and analgesics are recommended for all patients.
- No unprotected intercourse until treatment completed and partner(s) tested and treated.

Treatment regimens

If most likely due to an STI:

- Cover for infection with gonorrhoea and chlamydia.
- Ceftriaxone 500mg im stat (make up with 2ml lignocaine 1% or as per data sheet) AND doxycycline 100mg twice daily for 14 days.

UTI pathogens suspected:

- Ciprofloxacin 500mg twice daily for 10 days (specialist approval may be required).
- Alternative in cases of allergy, tendon injury, etc:
  - Amoxycillin/clavulanate 500mg 3 times daily for 10 days.

Partner notification and management of sexual partners

Partner notification – if due to suspected STI

- Be clear about language: 'partner' implies relationship – all sexual contacts in the last 2 months should be advised so they can have a sexual health check and treatment.
- Contacts should be treated without waiting for their test results; if positive, then their recent contacts need to be informed.
- Most choose to tell contacts themselves.
- Giving written information is helpful.
- Notifying all contacts may not be possible, e.g. if there insufficient information or a threat of violence.

Management of sexual partners/contacts

- Perform a full sexual health check.
- Do not wait for test results.
  - If the STI pathogen causing the epididymo-orchitis is known, an antibiotic regimen appropriate for treating this pathogen should be used.
  - If the STI pathogen causing the epididymo-orchitis is unknown, then treat partners with azithromycin 1g stat.
- Advise them to use condoms or abstain from sex for 7 days until results of tests are available.
- If chlamydia or gonorrhoea positive – partner notification as above.

Follow-up

- Patients should be reviewed in 24–48 hours to assess response, and at least once more at 1–2 weeks in order to assess resolution, to give results, check adherence and ensure that sexual partners have been treated.
- If not improving or condition worsening, consider surgical referral.
- If resolution slow, consider ultrasound to exclude complications or co-existing pathology:
  - Testicular infarction or abscess formation
  - Tumour
  - Mumps
  - Tuberculosis or fungal infection (especially if immunocompromised).
- Further investigations – relevant urological investigations if Gram negative organisms, especially if over 50 years.

Referral guidelines

Referral to a specialist sexual health service is recommended for:

- Management of sexual partners if clinician wishes.

Referral to urology is recommended for:

- Failure to respond to treatment.
- Severe epididymo-orchitis requiring iv antibiotics and bed rest.
- Urinary tract evaluation required.

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