

Gonococcal conjunctivitis:

the importance of good-quality conjunctival swabs

INTRODUCTION

Adult gonococcal conjunctivitis is a relatively rare disease in the UK. It 'typically' presents in young adult men who have sex with men, and usually is preceded by a symptomatic urethritis.¹ Examination shows uni- or bilateral conjunctival injection, chemosis, subconjunctival haemorrhages, and copious mucopurulent discharge. If there is corneal involvement, there may be associated epithelial defects and stromal infiltrates, which, if left untreated, can rapidly lead to corneal perforation. It is easily treated and therefore a diagnosis not to be missed.²

CASE HISTORY

A discharging red eye is a common presentation to general practice, and is often diagnosed and treated as bacterial conjunctivitis.³ We were referred a 76-year-old male patient with severe bilateral conjunctivitis, unresponsive to treatment with topical chloramphenicol and fusidic acid.⁴ He developed photophobia and reduced visual acuity to 6/18 in both eyes from 6/9 1 year previously. Slit-lamp examination demonstrated bilateral intense conjunctival injection, chemosis, diffuse conjunctival vessel dilatation, with small

Figure 1. Technique of conjunctival bacteriological swabs. 1) After checking patient demographics, explaining the procedure, and obtaining verbal consent, position the patient so that both clinician and patient are comfortable, ideally with the head supported. 2) Wash hands and don non-sterile gloves. 3) Ask the patient to look up and gently retract the lower eyelid. 4) Sweep the swab stick gently across the lower fornix, from inner to outer canthus. Ensure you avoid the eyelids and lashes. 5) Place the swab in culture medium.

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Figure 2. Technique of conjunctival chlamydial swabs. 1) Follow steps 1–2 as for bacteriological swabs. 2) Ask the patient to look down and gently evert the upper eyelid. 3) Sweep the swab across the upper tarsus from inner to outer canthus. 4) Place the swab in culture medium.

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subconjunctival haemorrhages. There were copious purulent exudates with evidence of early keratitis.

Bilateral conjunctival swabs were taken. Gram staining of these samples demonstrated Gram-negative intracellular diplococci, with subsequent growth of *Neisseria gonorrhoeae*. The patient was treated successfully with 1 g intramuscular ceftriaxone, with complete resolution of his symptoms and visual acuity.

Interestingly, the patient denied any sexual risk factors, attending with his wife of over 30 years. Both were referred to the genitourinary clinic, where investigations were negative for any sexually transmitted genital infection.

LEARNING POINTS

This case has a number of important messages. First, it highlights the importance of good-quality conjunctival swabs. Swabs need to sweep relatively deeply into the inferior conjunctival fornix, which can be uncomfortable for the patient (Figure 1). Care must be taken to avoid the eyelids and lashes, which can contaminate the culture with skin flora. Chlamydial swabs should also be considered, although the technique for this involves everting the upper lids and running the chlamydial-specific swab from inner to outer canthus (Figure 2). Second, it highlights that unusual patient demographics and lack of sexual risk factors do not preclude a diagnosis of

gonococcal conjunctivitis, nor does absence of concurrent genital infection. Indeed, the source of infection in this case remains unknown.

Some anecdotal evidence exists for unusual reservoirs of infection: ranging from oropharyngeal carriage to contaminated toilet seats.^{5–7}

If a patient presents with mucopurulent conjunctivitis we recommend acquiring adequate conjunctival swabs, as outlined above, before commencing antibiotic therapy. If there are any concerns, or there is failure to respond or worsening symptoms, urgent referral to ophthalmology is indicated. A previously coined phrase remains relevant: 'Don't forget gonococcus!'²

Patient consent

The patient has provided written consent for the article to be published. Written consent has also been provided for the demonstration of technique images.

Provenance

Freely submitted; externally peer reviewed.

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