

RESEARCH LETTER

Delay in diagnosis resulting in corneal perforation: nucleic acid amplification tests for a rapid identification of ocular *Neisseria gonorrhoeae* infection

Gonococcus (GC) is considered one of the most prevalent STIs worldwide. We report a case of gonococcal ocular infection (GOI) in a 40-year-old man. He consulted for a 4-week history of unilateral purulent conjunctivitis and severe pain, after experimenting clinical worsening despite having been treated for viral conjunctivitis. On examination, visual acuity (VA) was 20/63, and superior corneal perforation with iris prolapse was observed. After directed history, he revealed high-risk sexual behaviour within the last 3 months and mild proctalgia starting 1 week before ocular symptoms. Conjunctival scrapings for cultures and PCR were collected. GC was detected by PCR in less than 24 hours, while culture remained negative. After diagnosis confirmation, empirical ceftazidime and vancomycin eye-drops were changed to ceftazidime and tobramycin. Additionally, ceftriaxone 2 g intramuscular plus azithromycin 1 g orally in a single dose were administered. Two days after the admission, he underwent a 4 mm diameter patch corneal grafting. Four

months postoperatively, his eye was white and VA improved to 20/25. The screening of other STIs was negative, and his sexual partners were traced for GC detection. This case emphasises the importance of prompt clinical suspicion and early diagnosis of GOI due to its potential vision-threatening complications. Hyperacute unilateral purulent conjunctivitis and severe pain should alert the clinician to the possible diagnosis of GOI. Rapid and accurate diagnosis of GC can be achieved using nucleic acid amplification tests (NAATs), including PCR. NAATs are recommended for use at urogenital and extragenital sites, due to their high sensitivity, specificity and ease transport.¹ However, their performance in GOI has not been fully assessed and are not widely used in clinical practice.² We believe it is worth considering NAATs in combination with culture when GOI is suspected, given this diagnostic tool is rapid and easy to collect by any clinician.

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