

CONJUNCTIVITIS: VIRAL OR BACTERIAL? ANTIBIOTIC OR NO ANTIBIOTIC?

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Case scenario

History. A 26-year-old Indian furniture factory worker was seen at the outpatient department with the complaint of redness and discomfort of his right eye for one day associated with yellowish sticky discharge worse in the morning.

Physical findings. The conjunctiva of the right eye was red and edematous. The left eye is normal. Both pupils were 3 mm in diameter and equal in size. Visual acuity, visual field, accommodation, pupillary light reflex were normal for both eyes.

Diagnosis and management. He was diagnosed with bacterial conjunctivitis of the right eye. Chloramphenicol eye drop was prescribed. He was also counselled on proper hygiene.

Is it possible to differential viral from bacterial conjunctivitis?

Acute conjunctivitis accounts for 1% to 4% of primary care office visits.¹ Most cases of conjunctivitis in primary care setting are viral in origin.¹ Many textbooks offer clinical features that distinguish between viral and bacterial conjunctivitis. A literature review by Rietveld RP et al concluded that there are not enough evidence to suggest the diagnostic usefulness of clinical signs, symptoms or both in differentiating a bacterial from viral conjunctivitis.² However early morning glued eye(s) or purulent conjunctival discharge increased the likelihood of a bacterial conjunctivitis.¹⁻³ Preauricular lymph node enlargement is more commonly noted in viral conjunctivitis.¹

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Although it is difficult to be certain whether the above patient has bacterial conjunctivitis, the presence of yellowish sticky discharge in the morning does point more towards the bacterial cause.

Is topical antibiotic effective in treating this patient?

Meta-analysis based on randomised controlled trials showed that, among patients with suspected bacterial conjunctivitis, clinical cure was faster in those prescribed topical antibiotics. Analysis showed that by Day 2-5, the percentage of clinical cure in patients using placebo was 64% but in patients using topical antibiotics was 83% (RR 1.31, 95% CI 1.11 to 1.55). However, after 5 days, the results become not statistically significant (RR 1.27; 95% CI 1.00 to 1.61). On the other hand, microbiologic remission within day 2 to 5 (based on culture) was more often attained in those patients receiving antibiotics than in those on placebo (RR 1.71, 95% CI 1.32 to 2.21). It appears that most patients would recover eventually without treatment, but the use of antibiotics is associated with significantly improved rates of early clinical remission, and early and late microbiological remission.⁴

In the purulent symptoms in the above patient, and the clinical diagnosis of bacterial conjunctivitis, we suggest that the use of topical antibiotic is justified.

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