

Red Eye – Don't Know Why? Include Inclusion Conjunctivitis in Your Differential Diagnosis

Troy M, Woods B, Lee P
Department of Ophthalmology, St. Vincent's
University Hospital Dublin

CASE

A 24 year old gentleman presented with a 9 month history of bilateral, recurrent, red, irritated eyes with watery discharge previously treated for conjunctivitis on multiple occasions in the interim. The patient denied any sexual contacts but stated that his symptoms began after sleeping on a "dirty couch". He denied any history of allergies or atopy.

On examination, he was systemically well. VA was 6/6 in both eyes. He had large follicles prominent in the inferior fornix and upper tarsal conjunctiva with superficial punctate keratitis bilaterally. Of note, he also had significant bilateral preauricular lymphadenopathy. There were no signs of molluscum or rosacea.



Fig 1. Right conjunctiva. Large follicles prominent in inferior fornix bilaterally.

INVESTIGATIONS & DIAGNOSIS

Routine swabs were sent for culture and sensitivity and adenovirus. Additionally, RNA-based nucleic acid amplification testing (Aptima Combo 2) was performed. This confirmed the diagnosis of chlamydia trachomatis. The patient had no genito-urinary symptoms, and urine testing for Chlamydia was negative.

Differential Diagnoses for chronic follicular conjunctivitis

- Adenoviral keratoconjunctivitis
 - Herpes simplex
 - Staphylococci
 - Rosacea
 - Vernal or atopic
- Molluscum contagiosum
- Inclusion Conjunctivitis

SYMPTOMS SIGNS

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| <ul style="list-style-type: none"> • Unilateral or Bilateral • Purulent discharge, crusting, swollen lids, lids 'glued together' • Red, irritated eyes • Tearing and photophobia • Blurring of vision | <ul style="list-style-type: none"> • Preauricular lymphadenopathy • Mucopurulent discharge • Conjunctival injection & chemosis • Follicular reaction • Superior micropannus • Fine or coarse epithelial/subepithelial infiltrates |
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MANAGEMENT

He was commenced on treatment with PO doxycycline and topical azithromycin and was referred to infectious disease colleagues. At follow-up his symptoms had improved significantly with resolution of follicles and preauricular lymphadenopathy. Additionally he was placed on a tapering course of dexafree for 4 weeks.

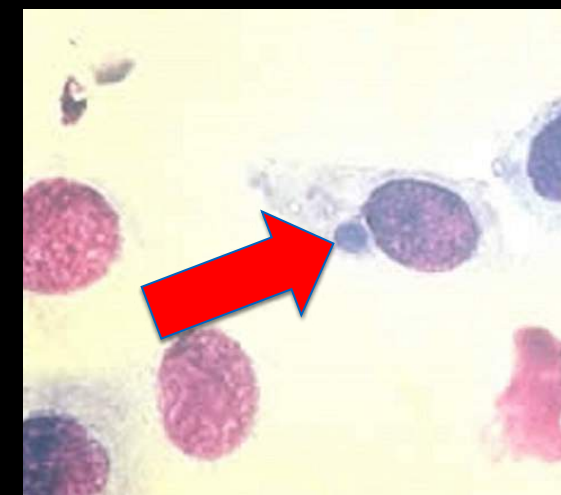


Fig 2. Chlamydia trachomatis is an 'obligate intracellular organism'

TAKE HOME MESSAGE

1. Chlamydia conjunctivitis should be considered in:
 - Cases of non-resolving conjunctivitis previously treated with antibiotics
 - Patients with concurrent genito-urinary symptoms
 - Patients recently diagnosed with genital chlamydia or other sexually transmitted infections
2. Multidisciplinary input is essential in the investigation and management of possible concurrent STI's

DISCUSSION

Chlamydia trachomatis is an obligate intracellular bacteria. It is responsible for trachoma, inclusion conjunctivitis, and lymphogranuloma venereum. The adult inclusion conjunctivitis is caused by serotypes D-K.

Chlamydia trachomatis is the most common cause of chronic follicular conjunctivitis. It is a sexually transmitted disease occurring most commonly in young adults, females being more susceptible than males.

The disease is usually transmitted via hand-to-eye spread of secretions from the genitals and has an incubation time of 1-2 weeks. The presenting features of chlamydia conjunctivitis mimic those of viral and other bacterial conjunctivitis, often resulting in patients receiving conventional topical antibiotics without any symptomatic relief.

Chlamydia may resolve spontaneously and this may be the reason for the failure to detect chlamydia on urine testing in this case.

Upon diagnosis, sexual partners of the patient should be contacted and evaluated. Coinfection with other sexually transmitted diseases should also be considered.



ST. VINCENT'S
UNIVERSITY HOSPITAL
Elm Park