Chlamydial Inclusion Conjunctivitis: Role of Eye Care in Managing Sexually Transmitted Disease in a High-Risk Population

Abstract
This case report discusses the epidemic rates of chlamydia amongst youth in high-risk neighborhoods of Boston and highlights the role of eye care in the management of this increasingly evident public health crisis.

Case History
- 21 year old, African American Male, from Dorchester MA (suburb of Boston)
- Complains of new onset red eye OD x 1 day (-) pain (-) discharge (-) irritation (-) involvement of other eye
- Hx of contact lens wear; has not worn contacts x 4 days (prefers glasses)
- Med Hx - none
- Medications - none

Pertinent Findings
- **Clinical:** Significant diffuse hyperemia of bulbar conjunctiva, 2+ chemosis of palpebral conjunctiva with prominent 3+ inferior palpebral follicles OD only
- No improvement of symptoms with 1) Discontinuation of contact lens wear, or with 2) Topical Fluorquinolone gtts , or with 3) Topical Antibiotic/Steroid gtts over the course of 10 days
- **Physical Findings:** (+) Hx of sexual activity (-) pain on urination
- **Laboratory studies:** Pending – Chlamydia/Gonorrhea Testing

Differential Diagnosis
- **Chlamydial Inclusion Conjunctivitis**
- Contact lens related acute red eye
- Allergic Conjunctivitis
- Trachoma
- Parinaud Oculoglandular Conjunctivitis

Diagnosis and Discussion
- Chlamydia is a sexually transmitted bacterial infection and is the most commonly reported sexually transmitted infection in America\(^1\). In Boston, Chlamydia is considered an epidemic and is now the most communicable disease in the city\(^2\). In high-risk minority neighborhoods of Boston, such as Dorchester and Mattapan, the prevalence sky rockets to over 10 times the national average, particularly among black youth ages 15-24\(^2,3\). The side effects of this otherwise silent condition can cause severe physical damage, including infertility in women\(^4\) which one reason it is such a prominent public health concern.
• In Boston’s at-risk neighborhoods, there are numerous social, financial, and cultural barriers that prevent patients from receiving timely healthcare. A persistent red eye in these areas is not only a concern for chlamydia, it is also an opportunity for optometrists to work with other providers to cease a growing public health concern that is endemic to these regions.

Treatment and Management
• Ofloxacin 6x/day x 6 days without resolution of symptoms, followed by
• Tobradex QID x 5 days without resolution symptoms
• Referred for Chlamydia/Gonorrhea testing. More than four attempts made by phone and by letter to schedule lab tests. Patient has yet to respond upon writing this abstract however Eye Clinic and PCP are currently working together to pursue follow-up care. Should patient test positive for Chlamydia, consider Azithromycin 1 g p.o single dose for treatment.

• Literature review

Conclusion
• Community health optometrists play a vital role in the general health management of the neighborhoods they serve. By studying the epidemiology of prevalent diseases in these regions, optometrists can assist in the surveillance and outreach of care to those who are at risk.
• Because of the epidemic rates of sexually transmitted disease in Boston, chlamydial inclusion conjunctivitis should always be the primary differential for persistent follicular conjunctivitis. Lack of sexual education and high clinic no-show rates in susceptible populations warrant expedited referral for laboratory testing and subsequent treatment if sexually transmitted disease is suspected.