Gonorrhea is a sexually transmitted disease marked by urethritis in males; it may also be transmitted to other organs through contact with infected genital secretions or urine, although rare in this era of modern antibiotics and rapid diagnostic tools. It could pose a difficult situation when we encounter emerging resistant strains. This paper reports a male who presented initially with unilateral gonococcal conjunctivitis contracted via autoinoculation and was found out to be suffering from gonococcal urethritis.

**Key words:** Gonorrhea, red eye

**INTRODUCTION**

Gonorrhea is a sexually transmitted disease caused by *Neisseria gonorrhoeae*. It is the second most common bacterial sexually transmitted infection (STI) in the US. This infection may be transmitted to other organs such as eyes by contact via unclean hands. As gonococcal eye infection in the adults is very rare, the clinical diagnosis may be delayed. Gonococcal keratoconjunctivitis is a potentially devastating infection because *Neisseria gonorrhoeae* can cause a rapid, severe, ulcerative keratitis resulting in visual loss. The therapeutic decision making process is complicated by the necessity for prompt, effective parenteral therapy, frequent coinfection with other sexually transmitted diseases, and emergence of antibiotic resistance. The genital infection in a patient presenting with red eye may be missed if not questioned, specifically for, by the physician to whom the case presents initially. Reported herein is a case with unilateral gonococcal conjunctivitis with intracellular gram-negative diplococci and gonococcal urethritis, without any adverse outcome in the eye owing to a prompt diagnosis and treatment.

**CASE REPORT**

A 22-year-old Omani male presented with redness in right eye [Figure 1] and was referred from the ophthalmologist to screen for sexually transmitted diseases. The patient had unprotected sexual intercourse with a commercial sex worker – 1 week ago and noticed yellow stains on the clothes second day onward; however, he had minimal discomfort while passing urine. The redness in the eye developed on the third day. Thick yellow purulent discharge was observed from urethra, urethral meatus did not show any signs of inflammation.

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There were no genital ulcers, erosions, or scars. Urethral smear and a swab from right eye were stained with grams stain and both were found to show numerous gram-negative intracellular diplococci. Throat swab was negative for diplococci. The patient was screened for venereal disease research laboratory test and Human immunodeficiency virus and was found to be negative for both.

Eye examination showed severe conjunctival congestion in right eye with chemosis, subconjunctival hemorrhage. Mucopurulent discharge was observed from the conjunctiva; however, the cornea was clear. Pupil was round, reacting, and anterior chamber was quiet. Left eye was clean. There was no clinical evidence of keratitis. His vision was not impaired.

He was hospitalized and treated with ceftriaxone 1 g I/M as per CDC guidelines along with doxycycline 100 mg bd for 7 days. Ofloxacin, gentamicin eye drops hourly, and fucidic acid three times daily. He recovered well and without any remaining stigma or visual loss in the affected eye.

**DISCUSSION**

Gonorrhea infects mucous membranes viz., urethra, cervix, rectum, pharynx, synovium, and eye. Gonococcal ocular infection can be divided into two distinct forms, one affecting neonates and the other sexually active adults. Most cases in neonates or adults are contracted through infected urine or genital secretions. An instance of ocular gonococcal infection in an adult even in the absence of genital infection has been reported in the literature.

Merianos et al. and Mak et al. reported epidemics of gonococcal conjunctivitis in Australian children.

Gonorrhea causes profuse, hyperacute purulent discharge accompanied by severe conjunctival chemosis and dilatation of the conjunctival vessels, eyelid swelling, and epithelial or stromal keratitis. Corneal melting, subepithelial infiltrates, edema of cornea, and corneal perforation may be seen. Gonococcal conjunctivitis is an emergency, requiring aggressive management to be fully codified. Without proper treatment, it can evolve and lead to fulminant ocular perforation within 24 h. Frequently ocular saline lavage and topical antibiotics have been recommended as ancillary therapy in the treatment of gonococcal ophthalmia, but are not essential for successful treatment of N. gonorrhoeae conjunctivitis in adults. Unlike the majority of conjunctivitis, the treatment is not only locally, but relies on antibiotic therapy and in some cases, an initial hospital surveillance. Indeed, the possible onset of a purulent corneal melting, which is the severity of the disease justifies this support.

If aggressive parenteral antibiotic therapy is instituted before severe corneal destruction occurs, it appears the risk of serious sequelae and visual loss is greatly reduced. Hence, Centers for Disease Control had issued the recommendation that all patients with adult gonococcal conjunctivitis be treated with hospitalization and a 5-day course of high doses of parenterally administered antibiotics which stands revised and the 2010 Guidelines recommend single intramuscular dose of 1 g of ceftriaxone and lavage of the affected eye with saline once.

Urethral symptoms precede the ocular symptoms from 1 week to several weeks, it was unusual of the patient in our case to present for ocular symptoms rather than the urethral symptoms and the ophthalmologist ordered a gram stain of the eye discharge to ascertain the diagnosis which revealed the cause and the patient was referred to us to screen for gonorrhoea and other sexually transmitted diseases.

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