CASE REPORT

Gonococcal conjunctivitis: A case report

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Case Summary

We report a case of acute gonococcal conjunctivitis in a 36-year-old woman who presented with eye redness and a history of discharge for one month. Prior to presenting to us, she was treated for bacterial conjunctivitis with three courses of local antibiotics by three different clinics after brief assessments and without improvement. The final diagnosis of gonococcal conjunctivitis was made after a complete history was elicited and supported by the presence of Neisseria Gonorrhoeae in the eye swab culture test. She and her sexual partner were treated successfully with intramuscular Ceftriaxone and oral Azithromycin. This case highlights the importance of complete history taking, including sexual history, which translates into early recognition and treatment, thus preventing complications.

Introduction

Due to the increased incidence of genitourinary-related, sexually-transmitted illnesses, gonococcal conjunctivitis is no longer uncommon in adults. Proper sexual history is mandatory in each patient presenting with purulent eye discharge[1,2]. This will aid the doctor in coming up with a proper diagnosis and treatment, which is crucial. Early treatment of gonococcal conjunctivitis may prevent further complications, which threaten the eyesight.[2]

Case report

A 36-year-old woman was referred by the ophthalmology team for screening and treatment of Neisseria Gonorrhoeae infection. She presented with right eye redness and pain dating back a month, associated with thick, yellowish discharge. She denied visual impairment. Her condition was worsening despite antibiotic eye drops that were prescribed by doctors from three different clinics. During the fourth week of the illness, her eyes condition remained the same. In our clinic, further history revealed that she had just learned that her husband, who is currently a prisoner, had multiple sexual partners previously. She also had a yellowish, smelly vaginal discharge over the past 3 months, associated with pain on urination and vaginal itchiness.

On examination, her right eyelid was swollen, her right eye conjunctiva was red and copious yellowish discharge was present. There was chemosis, as well. Her left eye conjunctiva was not swollen and no discharge was seen. Bilateral pupils were equal, round and reactive and there was no evidence of keratitis. She was also afebrile. A vaginal examination revealed yellowish vaginal discharge. However, there was no ulceration or rash over the genital area.

Right eye and vaginal swabs were sent for gram stain and culture and sensitivity. The gram stain was done immediately and revealed the presence of gram-negative diplococci.

She received a single dose of intramuscular Ceftriaxone 1 gram and a tablet of Azithromycin 1 gram immediately. Notification for contact tracing was done on the same day. With her permission, we contacted the doctor in charge of the prisoner to counsel and treat her husband and reassured the patient regarding the maintenance of confidentiality.

She was given appointments at the primary care and ophthalmology clinics. One week after she completed treatment, her eye symptoms were completely resolved with no visual problems. The culture and sensitivity proved the presence of a Neisseria Gonorrhoeae infection, the vaginal swab was positive for Neisseria Gonorrhoeae, and both the vaginal swab and urine culture were negative for Chlamydia Trachomatis. Infective screenings for Human Immunodeficiency Virus (HIV), Hepatitis B, Hepatitis C and Syphilis were negative.

Discussion

Gonorrhoea infections can be asymptomatic in women. The most common presentations of gonococcal infection in women include vaginal discharge, itchiness, dysuria, dyspareunia, anal pain, anal discharge and lower abdominal pain[3].

The patient may present with extra-genital symptoms, such as ocular conjunctivitis, as in our patient.[1] The presentations of gonococcal conjunctivitis can be similar to other forms of bacterial conjunctivitis, such as conjunctival injection, purulent eye discharge, chemosis and swelling of the eyelids.[1] Untreated gonococcal conjunctivitis may lead to keratitis, corneal ulceration, panophtalmitis[1,4] and corneal perforation[5].

A meticulous history, including sexual and social histories, should be obtained from the patient in order for a health care provider to diagnose gonococcal conjunctivitis.[1,6] Obtaining a robust sexual and social history can be a great challenge to the health care provider, as not all patients are comfortable discussing such matters. These limitations can be tackled by developing a good rapport with the patient using good communication skills. A convenient environment and a patient-centered doctor who demonstrates empathy will encourage patients to share their problems, as needed.[6-8] Every patient should be asked about their sexual partners, practices, previous history of sexually-transmitted diseases (STDs) and any protection used to prevent STDs and pregnancy.[9]

A high index of suspicion is always important when there is prolonged, unresolved, treated conjunctivitis in a patient. Immediate treatment and proper investigations are obligatory, for instance, collecting an eye swab for gram stain and culture and sensitivity.[5] In our patient, the treatment, notification, contact screening and treatment were carried out as recommended by the 2015 CDC Sexually Transmitted Diseases Treatment Guideline.[10]

Conclusion

A prolonged conjunctivitis, especially one lasting more than 2 weeks, which does not respond to usual treatments should raise suspicion and result in further investigation. Prompt treatment of the patient and the sexual partner will prevent disastrous complications. A patient-centered doctor with empathy and a conducive consultation room, along with a complete physical examination, will improve the quality of treatment and prevent unwanted complications.

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