

Postgonococcal conjunctivitis caused by *Chlamydia trachomatis*

Case report

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SUMMARY Autoinoculation of the eye from a genital infection with *Neisseria gonorrhoeae* and *Chlamydia trachomatis* occurred in a young girl. Patients presenting with genital infection and conjunctivitis should, therefore, be examined for infection with both organisms and treated accordingly.

Introduction

Conjunctivitis caused by *Neisseria gonorrhoeae* is an uncommon complication of genital gonorrhoea, affecting probably less than 1% of patients. Infections with both *Neisseria gonorrhoeae* and *Chlamydia trachomatis* occur in about one third of all cases of urethritis.¹ Autoinoculation of the conjunctiva by both organisms from the genital tract is an obvious possibility but has not yet been reported. Though probably rare symptoms persisting after successful treatment of gonococcal conjunctivitis indicate a need for microbiological tests for chlamydial infection of the eye. A case of infection of the conjunctiva with both *N gonorrhoeae* and *C trachomatis* is reported.

Case report

A girl of 16 years was admitted to hospital because of lower abdominal pain. During the previous three days she had an increased vaginal discharge, dysuria, and redness of the right eye. Her rectal temperature on admission was 37.8°C; the erythrocyte sedimentation rate was 16 mm in first hour and white blood cell count $4.2 \times 10^9/l$. She had a yellowish discharge, and oedema, friability, and redness of the uterine cervix were evident. On bimanual palpation pain was felt when the uterus was moved but no adnexal masses were palpable. Because of these clinical signs of pelvic inflammatory disease

laparoscopy was performed; the fallopian tubes were slightly red and oedematous, but no pus exuded from the abdominal ostia of the tubes nor was pus present in the cul-de-sac. Perihepatitis was not evident.

N gonorrhoeae was cultured from the cervix, the urethra, and the right conjunctiva; culture for *C trachomatis* was not performed at this time. The patient was treated with penicillin 10⁶ IU intramuscularly twice daily for six days. During treatment the abdominal pain and dysuria resolved and the vaginal discharge decreased. Pelvic examination five days after admission showed no abnormality. Though symptoms of the right-sided conjunctivitis decreased in severity during treatment they increased shortly after the end of treatment. Because of the persistent symptoms the patient consulted an ophthalmologist, who prescribed chloramphenicol eye drops. This treatment was, however, ineffective.

Three weeks after the onset of the inflammation the patient attended the venereal disease clinic. Pelvic examination showed no abnormalities; no signs of cervicitis or salpingitis were present. The right eyelids were swollen and a purulent conjunctival discharge was present; the conjunctivae were hyperaemic with slight vesicle formation. The left eye was normal. Culture results for *C trachomatis* from the lower conjunctiva of the right eye were positive, but *N gonorrhoeae* was not isolated. Culture results for *N gonorrhoeae* and *C trachomatis* from the urethra and cervix were also negative. The patient was treated with erythromycin (Abbotin) 500 mg twice daily for 10 days. During treatment the conjunctival symptoms resolved, and after treatment the eye appeared normal. Culture results for *C trachomatis* and *N gonorrhoeae* were negative.

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Discussion

Ocular infection with *C trachomatis* occurs in two distinct epidemiological situations. The most common is the classical eye disease of developing countries—namely, trachoma, which is spread by eye-to-eye transmission. This infection is caused by the chlamydial serotypes A to C whereas infection of the eye from the genital tract is due to serotypes D to K. The classical features of infection due to serotypes D to K are seen in neonates from the fourth to the twenty-fourth postpartum day.² Approximately 40-50% of neonates born to mothers with cervical chlamydial infection become infected.³ In adults chlamydial eye and genital infection have occurred concurrently. Thus Rønnerstam and Persson⁴ found that of 700-800 chlamydial isolations each year 10 originated from adults with conjunctivitis. They estimated that about 1.5% of the chlamydial infections presented as conjunctivitis. The risk of genitococular autoinoculation in patients with genital chlamydial infection is not known.

Infections of the female genital tract with both *C trachomatis* and *N gonorrhoeae* is common; *N gonorrhoeae* has been isolated from the cervix in 18-42% of women with chlamydial cervicitis and *C trachomatis* from 31-63% of women with gonorrhoea.⁵

In many cases only the diagnosis of cervical gonococcal infection will be confirmed, since culture facilities for *C trachomatis* are limited. Treatment of gonorrhoea generally includes antibiotics, to which *C trachomatis* is less sensitive; this results in postgonococcal cervicitis and, in some cases of genitococular infection, in postgonococcal conjunctivitis, as reported here.

Thus patients with genital infections and with conjunctivitis should be examined for infection not only with *N gonorrhoeae* but also with *C trachomatis* and treated accordingly. Moreover, patients with persistent conjunctivitis should be investigated for infection with *C trachomatis*.

References

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