

TREATMENT WITH AMNIOTIC MEMBRANE IN KERATOLYSIS SECONDARY TO ADULT GONOCOCCAL KERATOCONJUNCTIVITIS

TRATAMIENTO CON MEMBRANA AMNIÓTICA EN QUERATOLISIS SECUNDARIA A QUERATOCONJUNTIVITIS GONOCÓCICA DEL ADULTO

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ABSTRACT

Case report: We present a 46-year-old man diagnosed initially with atypical adenoviral conjunctivitis and advanced marginal keratolysis with risk of perforation. The final diagnosis was gonococcal keratoconjunctivitis. The patient was successfully treated with amniotic membrane transplant, topic and systemic ceftriaxone (50 mg/ml and 1 grame/12 hours intravenous).

Discussion: Gonorrhoea must be suspected in cases of torpid evolution conjunctivitis (*Arch Soc Esp Ophthalmol 2009; 84: 155-158*).

Key words: Gonococcal infection, keratoconjunctivitis, keratolysis, amniotic membrane, ceftriaxone.

RESUMEN

Caso clínico: Varón de 46 años diagnosticado inicialmente de conjuntivitis adenovírica atípica con queratolisis marginal avanzada y riesgo de perforación ocular. El diagnóstico final fue queratoconjunctivitis gonocócica. El paciente fue tratado eficazmente con recubrimiento de membrana amniótica, ceftriaxona tópica y sistémica (50 mg/ml y 1 gr/12 h intravenosa).

Discusión: La gonorrea debe ser sospechada en casos de conjuntivitis de evolución tórpida.

Palabras clave: Infección gonocócica, queratoconjunctivitis, queratolisis, membrana amniótica, ceftriaxona.

INTRODUCTION

Ocular infection by gonococcus among adults is relatively uncommon and is associated with sexual acts via direct contact with genitourinary secretions.

Diagnosis is difficult due to confusion with other entities affecting the conjunctiva, such as adenovirus-infected conjunctivitis in epidemics or autoimmune processes with marginal keratolysis.

The present article describes the case of a young male diagnosed with gonococcal keratoconjunctivitis in our unit.

CASE REPORT

46-year-old male arrived reporting viral conjunctivitis in the right eye (RE) after ten days of evolu-

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tion and no improvement associated with the treatment, which consisted of tobramycin and dexamethasone.

Personal history included condyloma on the penis without urethritis six months earlier and permissive sex at present.

Ophthalmologic exploration reveals visual acuity in RE with light perception and projection. Biomicroscopy of the anterior pole in RE reveals superior corneal thinning with imminent risk of ocular perforation (fig. 1), prompting treatment consisting of multilayer amniotic membrane transplantation (fig. 2).

Since results of the conjunctival exudate culture were positive for *Neisseria Gonorrhoeae*, intravenous antibiotic treatment with 1g/12 h of ceftriaxone and topical treatment with reinforced ceftriaxone eye drops (50 mg/ml) were prescribed over a period of 21 days.

One month later, patient presented visual acuity of 0.8 in RE; biomicroscopy of the anterior pole revealed superior corneal fibrosis with good transparency at the center and well-formed anterior chamber (fig. 3).

DISCUSSION

Ocular infections among adults caused by *Neisseria Gonorrhoeae* have been considered as rare disorders. However, the recent rise in sexually transmitted diseases has increased its incidence.

Typically, ocular involvement in adults tends to be unilateral and is the result of direct auto-trans-

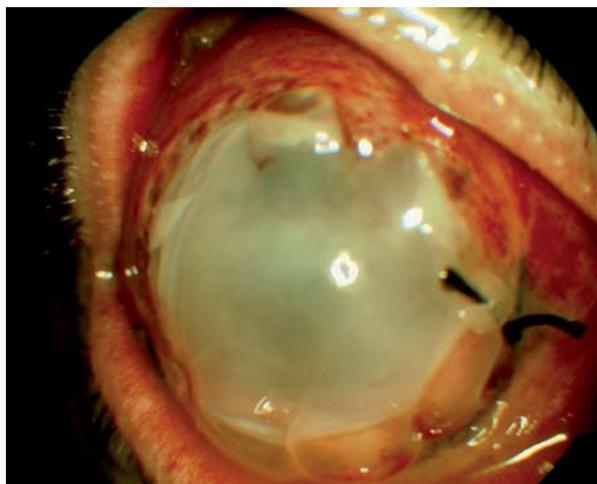


Fig. 2: Corneal coating with amniotic membrane.

mission from the urethra. This occurs mainly among males and usually involves the right eye.

Clinical condition consists of severe hyper acute purulent conjunctivitis accompanied by severe conjunctival chemosis and on occasion endothelial and stromal keratitis. In some cases, a marginal corneal thinning results which rarely leads to perforation in approximately 24-48 h if no adequate treatment is applied.

Urethral symptoms tend to precede ocular symptoms several weeks before, thus the need for appropriate clinical histories of patients (1,2).

General recommendations for the treatment of gonococcal conjunctivitis in adults include inpatient parenteral treatment with penicillin or other

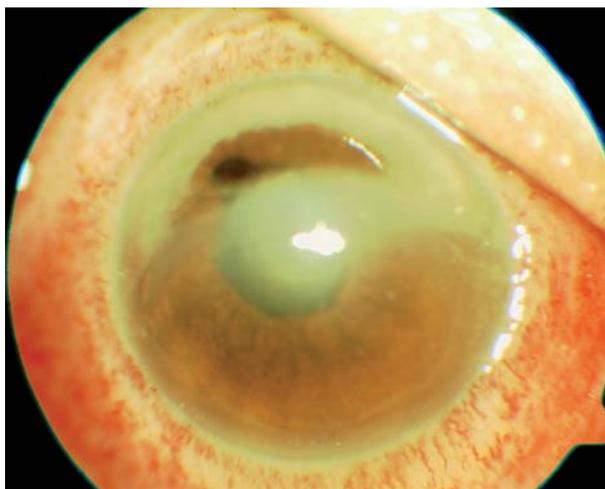


Fig. 1: Keratolysis at diagnosis.

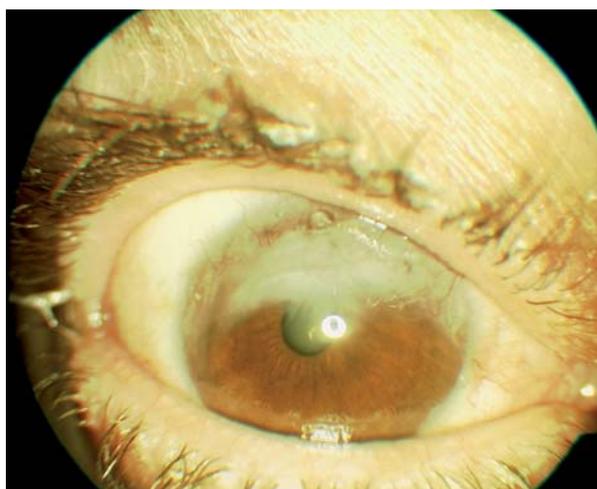


Fig. 3: Superior corneal fibrosis one month after coating.

antibiotics such as cephalosporin. The WHO recommendation is 1 gram per day of intramuscular cefotaxime for at least five days or 2 grams of intramuscular spectomycin for three days (3).

In the present case, ceftriaxone, third-generation cephalosporin, was chosen due to its specific properties such as long elimination half-life in plasma, greater β -lactamase stability and good in vitro activity against *N. Gonorrhoeae* (4). The use of oral norfloxacin in 1,200 mgr doses during three days is also a good option, since it facilitates compliance with the treatment on the part of patients (5). At any rate, this microorganism is known to be resistant to quinolones as well as penicillin and tetracycline, which requires choosing the appropriate antibiotic based on sensitivity tests of isolated germs (2).

In spite of the risks entailed by surgical procedures at times of acute infection, amniotic membrane transplantation tends to have good outcomes and is an efficient alternative to bulbar enucleation in cases of ocular perforation. In the present case, coating was performed by means of superior marginal corneal keratolysis, yielding good structural and visual acuity outcomes.

Whenever purulent conjunctivitis is suspected, an urgent culture should be performed even before starting antibiotic therapy, while cultures should be performed until full healing is achieved in the event of obtaining positive cultures for gonococcus. Patients and their respective couples should be informed about their disease and the risk of transmission. Women of childbearing age should take a

pregnancy test. It is also necessary to perform a Lues serology; when positive, intramuscular Penicillin G Benzathine should be administered, although intravenous ceftriaxone would cover the *Treponema Pallidum*. Oral antibiotic therapy with doxycycline or erythromycin is also recommended against *Chlamydia Trachomatis*, since in many cases both microorganisms coexist (3).

Finally, when faced with torpid evolution conjunctivitis among adults, gonorrhea should be suspected as a result of risky sexual relations and the increase of immigrants among the domestic population. Coating with amniotic membrane is an efficient way of protecting the eye in perforation cases or high risk of perforation due to keratolysis induced by this germ.

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