

Painless acanthamoeba keratitis

A case report

One of the hallmarks of keratitis caused by acanthamoeba is the severe pain associated with the condition, which may be out of proportion to the apparent degree of corneal involvement. The case of acanthamoeba keratitis described here is atypical, in that the patient never complained of any pain. Although a couple of case reports do exist in the literature^{1,2}, research suggests that this is the first reported case of painless acanthamoeba keratitis in the UK.

Case report

A 17-year old Afro-Caribbean female was referred to eye casualty with a six-day history of redness and blurred vision in her left eye. Her GP had treated her with chloramphenicol eye ointment but with



Figure 1
Central annular infiltrates with perilimbal injection

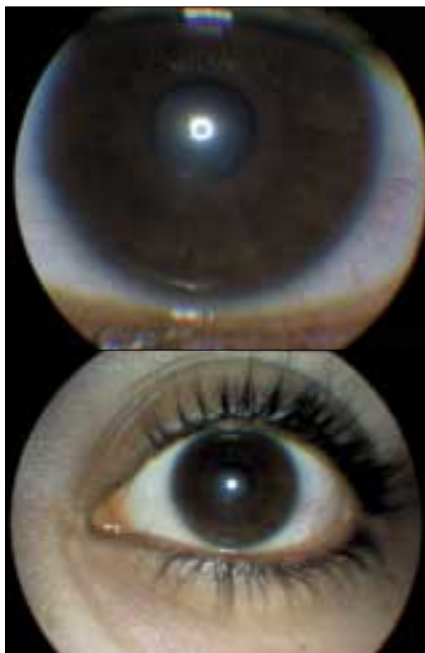


Figure 2
Appearance after six months of anti-acanthamoeba treatment

no improvement. She was a myope and wore soft contact lenses.

Snellen visual acuity of the left eye was 6/36 with spectacles, improving to 6/9 with pinhole. There was marked circumcorneal injection (**Figure 1**). The central cornea showed a circular area of mid-stromal haze and anterior stromal opacities with overlying superficial punctate keratitis. Between this circular area and the limbus superiorly and nasally was what was initially described as "prominent corneal nerves". The anterior chamber showed a mild anterior uveitis. Apart from some itching, there was no complaint of pain or discomfort.

The initial clinical impression was that of a contact lens-related corneal abrasion associated with iritis. A pressure bandage was applied after instilling chloramphenicol ointment and cyclopentolate 1% drops. On review 24 hours later, there was no improvement in her condition. Visual acuity was worse at 6/60 and 6/36 with pinhole. There was some breakdown of corneal epithelium over the central lesion resulting in a linear uptake of fluorescein. The patient still did not complain of pain. The lesion was scraped for bacterial microscopy and culture and the patient was commenced on two-hourly topical ciprofloxacin.

Three days later, her condition had not improved and vision remained hazy. The anterior stromal opacities had now assumed a ring shape and she also had perineural infiltrates (earlier alluded to as corneal nerves). Anterior chamber details were hazy. There was marked injection around the limbus. We considered this clinical appearance to be consistent with a diagnosis of acanthamoeba keratitis. She was admitted and commenced on topical neomycin six times daily, propamidine (Brolene) four times daily and polyhexamethyl biguanide (PHMB) two hourly. Microbiology was negative for any organisms.

Over the next four days, the ring infiltrate started to reduce in size and there was a significant reduction in the circumcorneal injection. The perineural infiltrates began to disappear and the

anterior chamber reaction resolved. Vision had improved to 6/12 with pinhole by day four. At this stage, she was discharged home on the above regime. A week later in out-patients, her condition had further improved and the PHMB was changed to topical chlorhexidine four times daily.

She was reviewed in out-patients at frequent intervals over the next six months, and the topical medication was slowly tapered but not stopped. The corneal infiltrates became much smaller over a period of four months and visual acuity improved to 6/12 and 6/9 with pinhole. At six months, there was no sign of active corneal disease (**Figure 2**) and the chlorhexidine and neomycin were stopped while the propamidine was tapered to twice daily.

Comment

The diagnosis of acanthamoeba keratitis can be easily missed, especially in its early stages. Among the usually described clinical features is the presence of severe discomfort, which may be out of proportion to the corneal involvement. This pain, along with a history of contact lens wear and the typical slit lamp signs of ring-shaped ulcer and perineural infiltrates, is highly suggestive of the condition. The diagnosis can be confusing in the absence of pain although, as this case illustrates, it is important to consider the diagnosis of acanthamoeba infection in all cases of contact lens-related keratitis, with or without pain. We have no explanation for the absence of pain in this case and it is possible that pain may be related to the degree of associated scleritis.

References

1. Tabin G, Taylor H et al (2001) Atypical presentation of acanthamoeba keratitis. *Cornea* 20 (7): 757-59.
2. Roters S, Aisenbrey S et al (2001) Painless acanthamoeba keratitis. *Klin. Monatsbl. Augenheilkd.* 218 (8): 570-3.

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