Pasteurella multocida conjunctivitis

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We present a case of *Pasteurella multocida* conjunctivitis in a pseudophakic patient. Other ocular manifestations of *Pasteurella multocida* infection are mentioned, and the importance of stressing to animal owners the need to avoid close contact with their pets is discussed.

Case report

An 80-year-old man presented with a 1 week history of redness and discharge 11 weeks after an uncomplicated left extracapsular lens extraction and posterior chamber lens implantation.

On examination there was evidence of posterior blepharitis, with conjunctival injection and a few follicles present. The cornea was clear, with a few cells present in the anterior chamber. No reflux of material from the lacrimal sac could be demonstrated.

The diagnosis of bacterial conjunctivitis was confirmed when a conjunctival swab yielded *Pasteurella multocida*, sensitive to the chloramphenicol prescribed empirically. In view of the association of *Pasteurella* infection with animal contact, on further questioning he admitted to owning a poodle, but denied any form of close contact with the animal, beyond taking it for walks.

Five days later he was symptom free. He was advised about lid hygiene, and a repeat swab was sterile.

Comment

Pasteurella multocida is a Gram negative oral commensal of many domestic animals. Human ocular infection with *Pasteurella multocida* is uncommon, accounting for only 12 of the 3699 isolates reported during 1975–86.¹

Three out of four cases of *Pasteurella* endophthalmitis reported resulted from cat-related ocular trauma,²⁻⁵ and *Pasteurella multocida* meningitis followed orbital exenteration in a patient with close animal contact.⁶

We strongly recommend that *Pasteurella* infection should be considered in any pet owner presenting with an eye infection, and that patients are advised to avoid close contact with animals in the immediate postoperative period.

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Phthirus pubis infestation of the eyelids

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A case of phthiriasis palpebrarum treated with 1% aqueous malathion is described.

Case report

A 32-year-old woman presented to the eye casualty department of the University Hospital of Wales with a 5 week history of bilateral blepharoconjunctivitis, unresponsive to topical antibiotics. Visual acuity was 6/6 in each eye. Slit-lamp examination revealed evidence of a follicular conjunctivitis with a mild punctate epitheliopathy. The cause was readily apparent,

there being several lice (later shown to be the crab louse, *Phthirus pubis*) and numerous translucent egg cases adherent to the base of the eyelashes (Fig 1). The lids themselves were moderately excoriated. There was no evidence of infestation elsewhere and contact tracing failed to reveal the source of the problem.

It was decided to treat the patient with malathion 1% aqueous shampoo applied carefully to the lid margins with cotton buds, washed off after 5 minutes. This regimen was repeated 2 days later. The patient was reviewed 2 days after her first treatment when a marked improvement

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Figure 1 Ova of *Phthirus pubis* attached to the eyelashes.

in her symptoms was noted. Examination revealed that no nits were present, only empty egg cases remaining. The patient had no difficulty applying the treatment and no side effects were reported. Two weeks later all signs of the infestation had resolved.

Comment

Phthirus pubis or crab lice are bloodsucking insects of the order Anoplura which are found most commonly in the groin, but can also occur in the axillae, chest hair, eyelashes, and eyebrows. Infestation is uncommon in the scalp. Although usually associated with genital infestation cases of isolated palpebral involvement have been described.¹ *Phthirus pubis* is well adapted to its habitat, being equipped with claws enabling it to cling to the stout hairs of these areas. The louse lays its eggs within a few days of becoming sexually mature. The tiny, white eggs or 'nits' are cemented to the bases of the hair shafts. After hatching the emerging nymphs pass through two or three stages (instars) before reaching adulthood.

Over the years many treatments have been advocated for louse infestations of the eyelids; however, we found that many were either too protracted or involved agents that are no longer commercially available. The simplest method involves the manual removal of the lice and nits with forceps.² In practice, however, as most cases occur in children such a procedure can be trying for both doctor and patient. Petrolatum applied to the lid margins twice daily for 8 days is often effective in eradicating lice but has no ovicidal

activity.³ Other forms of treatment have included the use of anticholinesterases such as physostigmine,^{4,5} cryotherapy,⁶ and argon laser ablation.⁷ More recently Ashkenazi *et al* recommended the use of yellow mercuric oxide applied four times daily for 14 days.⁸ All of these methods are effective; however each has its drawbacks. Physostigmine 0.25% ointment is no longer commercially available while mercuric oxide requires a 2 week course of treatment.

Malathion (diethyl 2-(dimethoxyphosphinothioylthio)succinate) is an organophosphorus anticholinesterase pesticide that has been widely used in the treatment of pediculosis and scabies as well as in veterinary medicine, agriculture, and horticulture.⁹ There are two formulations of malathion – 0.5% in alcohol and 1% aqueous shampoo. Malathion is more effective in an alcohol based preparation but this cannot be safely applied to the eyelids. The shampoo is marginally less effective but avoids the side effects of the alcohol base. A review of the literature revealed that the use of aqueous 1% malathion shampoo in the manner described was first advocated by Burns.¹⁰ However, we believe that this is the first case report of successful treatment using aqueous 1% malathion in phthiriasis palpebrarum. It has an advantage over many of the other forms of treatment of lice in that it is both pediculocidal and ovicidal¹¹ so that one or, at most, two applications should suffice. In addition, other than mild irritation that can occur when any shampoo enters the conjunctival sac there have been no reports of ocular toxicity from malathion when used in this way. We believe that 1% aqueous malathion is a safe, simple, and effective treatment for *Phthirus pubis* infestation of the eyelids and would recommend it as a primary treatment for this condition.

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