CASE REPORT

A case of unilateral phthiriasis palpebrarum infestation involving the left eye

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SUMMARY

Phthiriasis palpebrarum is a rare cause of eyelid infestation. We report a case of unilateral phthiriasis palpebrarum. A 28-year-old man presented with moderate itching associated with lacrimation and irritation in the left eye. The initial evaluation of the patient revealed multiple white dots on the left upper eyelashes. Slit-lamp examination revealed multiple nits attached to the base and shaft of the cilia. There was no hyperaemia or discharge present in the conjunctiva and the cornea was clear and shiny. The right eye was perfectly normal. The patient was treated with moxifloxacin eye ointment and was completely cured in 1 week.

BACKGROUND

Phthiriasis palpebrarum is an eyelid infestation caused by *Phthiriasis pubis* or crab lice.¹ Although *Phthiriasis* species frequently infest the skin and hair, infestation of eyelids and eyelashes is very rare and more so when it is unilateral. The condition is mainly seen in developing countries and is uncommon in developed countries. The cases are easy to diagnose and plenty of treatment options are available with varying efficacy. In neglected or misdiagnosed cases it can lead to blepharitis or blepharoconjunctivitis.²

CASE PRESENTATION

A 28-year-old man presented to our outpatient department (OPD) with symptoms of moderate itching of the left upper eyelid, mild irritation and lacrimation in the left eye. There was no problem in the right eye. On external examination multiple white dots were observed near the base and shaft of the left upper eyelashes. The dots seemed to be fixed and were not affected by lid movements. On palpation of the lid and lashes they appeared as granular and were difficult to dislodge. The patient was immediately taken up for slit-lamp examination where many translucent oval nits were found to be firmly adhering to the base and shaft of the cilia (figure 1). The nits were mainly in the middle third of the lashes. No adult lice were observed. There was mild hyperaemia and excoriation of the outer margin of the left upper lid (figure 1). No hyperaemia or discharge was observed in the conjunctiva. The right eye was perfectly normal. The visual acuity of the patient in both eye (BE) was 6/6. The patient was examined in the dermatology OPD where no sign of *P. pubis* was observed. The patient did not have diabetes or any chronic disease. During the period of treatment and afterwards the

patient was advised to avoid close body contact and not to share clothing and towels.

TREATMENT

The patient was prescribed moxifloxacin eye ointment and was instructed to leisurely apply it around the eyelashes of the left upper lid including its outer margin. Manual removal of nits with forceps was not attempted as they were numerous in number and it was a tedious process.

OUTCOME AND FOLLOW-UP

The patient was examined the next day and only six nits were seen left behind most of which were shrivelled and dried up (figure 2). The same treatment was continued the following days and at the end of 1 week, the patient was completely free of nits. During the period of treatment and afterwards the patient was advised to avoid close body contact and not to share clothing and towels.

DISCUSSION

Phthiriasis palpebrarum is a rare cause of blepharitis due to *P. pubis* otherwise known as crab louse.¹ *P. pubis* belongs to the order of Anouplura of the family Pedialidae and the genus *Phthirus*. It is an obligate ectoparasite and is more common than the

Figure 1 Presentation on day 1.

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Figure 2 Presentation on day 2.

head louse. Morphologically it resembles the head and body louse except that its second and third pair of legs and claws is stouter.³ The abdomen is broader than the length and hence the name. The adult louse has a life span of 1 month during which the female lays 7–10 eggs/day. The eggs (nits) hatch in about 8 days and nymphs require another 8 days to reach maturity.⁴ The infestation with *P. pubis* is seen mainly in children, particularly the inhabitants of the crowded slum or living in poor hygienic conditions. Blepharitis due to *P. pubis* is a rare condition especially so if it is unilateral but, nevertheless, cases have been reported in children one and half years of age.⁵ Such cases in children should give rise to suspicion of child abuse when there is a social history dictating the risk of such abuse.⁶ The condition may go unrecognized for a long time for the fact that the parasite is very small in size and similar to the skin colour and not readily visible, but the presence of nits on eyelashes which are visible as white dots is a readily available clue to diagnosis. The parasite probably reaches the eyes by transmission from the pubic area via hands, but cases have been reported where lashes were infested without pubic involvement. Infestation is usually transmitted by sexual contact but may be transmitted via clothing or towels. The site of infestation can give a clue about the mode of transmission as the parasite can travel only a short distance from the initial site of lodgement. The most common symptom is itching which is due to dermal hypersensitivity to the louse saliva. Blepharitis is not by any means invariable for lice may be found on the normal palpebral margin but frequent itching, scratching and rubbing lead to true inflammation which may be very persistent and intense.⁷ The translucent oval nits which are located onto the base of eyelashes and cilia are often confused with the crusty excretion of saeborrhic blepharitis. In our case the mode of transmission seems to be sharing of the clothing and towels as the patient resided in a hostel where sharing of clothes is very common. Also on detailed dermatological evaluation there was no evidence of infestation on any other body parts. There are multiple treatment options available like mechanical removal with

forceps, trimming of eyelashes, cryotherapy, argon laser photo-coagulation, fluorescein eye drops 20 %, physostigmine 25 %, yellow mercuric oxide ointment 1 %, pilocarpine gel and oral ivermectin.^{1 2 8} Mechanical removal of nits is still the treatment of choice.⁹ We treated our patient with meticulous application of moxifloxacin e/o over the lid margin and eyelashes. We did not attempt mechanical removal due to the large number of nits and we thought in our case it would be time consuming and cumbersome for the patient. Phthiriasis palpebrarum causes blepharitis with marked conjunctival inflammation, periauricular lymphadenopathy and secondary infection at the site of bite.^{2 10} However, we did not observe hyperaemia, oedema or any discharge to be considered as a case of blepharoconjunctivitis, so we made a diagnosis of phthiriasis palpebrarum without secondary infection. The rationale behind using moxifloxacin eye ointment was that inert ophthalmic ointments can be used to suffocate lice and their nits.¹¹

Learning points

- ▶ Unilateral phthiriasis palpebrarum is a rare condition which occurs due to infestation with pubic lice.
- ▶ It can be very easily misdiagnosed as a case of blepharitis.
- ▶ In neglected and misdiagnosed cases it can lead to blepharoconjunctivitis.
- ▶ There are a number of treatment options available of which application of an antibiotic ointment proved to be an easy and effective method.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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