

A peculiar case of eye pruritus: Phthiriasis palpebrarum initially misdiagnosed as common blepharitis

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Dear Sir,

I am Dr. Jin Jiang, from the Department of Ophthalmology, Zhejiang Provincial People's Hospital, Hangzhou, China. I write to present a peculiar case report of Phthiriasis palpebrarum initially misdiagnosed as common blepharitis.

Phthirus pubis (crab louse) infests mainly the hair of the pubic and inguinal regions, but rarely the eyelashes and eyelid (Phthiriasis palpebrarum). Symptoms of the suffered eye usually include ocular itching, irritation, visible lice and nits, erythematous lesions resulting from louse bites, reddish brown deposits on the lashes (feces), follicular conjunctivitis and marginal keratitis^[1]. Due to similarities in the signs and symptoms between Phthiriasis palpebrarum and blepharitis, the two conditions can easily be misdiagnosed by clinicians. Here we reported a case of atypical phthiriasis palpebrarum mimicking blepharitis. After the positive diagnosis was made, it was cured successfully by mechanical removal of the lice and the excretion around the eyelid.

A 34-year-old man complained of itching, burning sensation and moderate pain on upper lid of his right eye for 2 months and said he had visited two local clinics where he was treated as eye infection. The doctors said that was blepharitis and prescribed a combination of antibiotic and corticosteroid ointments. Despite the drugs given, the symptoms were in-and-out. The patient added that sometimes he noticed some concretions attached to his

eyelashes and some small insects crawling over his eyelid. Other medical history was not remarkable.

Appropriate informed consent was obtained from the patient before the thorough examination and all the protocol adhered to the principles of the Declaration of Helsinki. The patient had a visual acuity of 5/5 in both eyes. Anterior and posterior segments were unremarkable except for the right upper lid. Further biomicroscopic examination revealed a few brown protuberances buried near the lid margin just like scabs and many dark-rusty granules adhered to the upper lid and the eyelashes. No moving insects were observed around. The eyelashes were relatively clean without other excretions adhering (Figure 1).

We tried cotton tips soaked by BSS to remove the scab-like protuberances, but failed. Finally, they were removed with a fine forceps, and all the rusty granules were cleaned out as well. The places where the protuberances preexisted left as superficial ulcers with smooth base (Figure 2). One of the scab-like things was checked under the slit-lamp again. To our surprise, it was a living insect and it was excreting feces. The dark rusty granules were their feces (Figure 3).

All the insects were sent for parasitological analysis. They were confirmed as Phthirus pubis by a microbiologist. On inquiring about the sexual history, the patient denied multiple sexual contacts and had no known infestation elsewhere in his body. He was told to apply Vaseline to the eyelids twice daily for a week and was counseled on the need for the treatment of close contacts like family members. Slit-lamp examination performed a week later, revealed clear healthy lids and lashes.

Phthiriasis pubis especially appears in cases of bad hygiene. It is mostly passed on by sexual contact or close physical contact. The predilection of the pubic lice for the pubic hair region is related to a lower density of hairs in that region. The space between the hairs is similar to the span of the hind legs of the crab louse that moves by catching hold of its 4 hind legs to 2 neighboring hairs^[2]. Infestation of Phthirus pubis on eyebrows or eyelashes could be caused by hand contact from the genital area to the eye. Occasionally, isolated palpebral involvement has been described^[3].

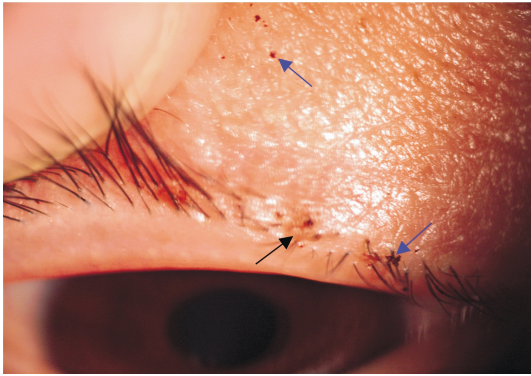


Figure 1 The upper lid margin of the patient's right eye under the slit-lamp. Small brown protuberance with dark spots (black arrow) was finally proved to be *Phthirus pubis* buried in the lid margin. A few rusty granules adhered to the upper lid and the eyelashes (blue arrow). No moving insects were observed around the lid

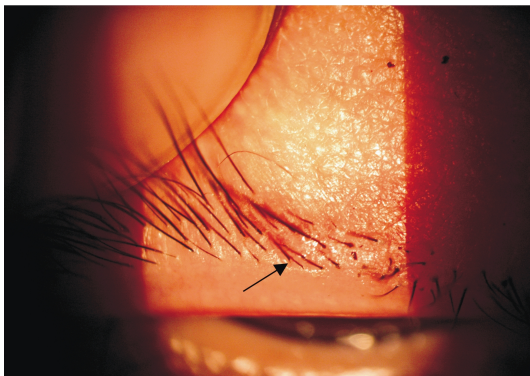


Figure 2 The upper lid under the slit-lamp after the scab-like protuberance was removed. The place where the protuberance preexisted appeared as superficial ulcers with smooth base (black arrow)

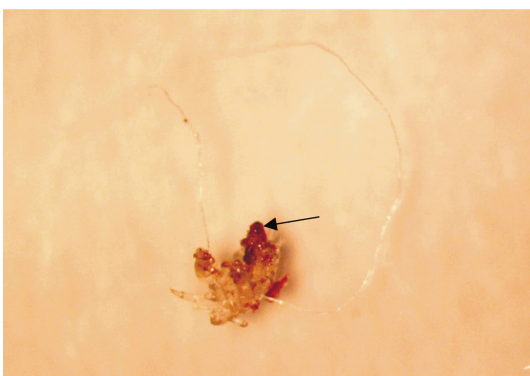


Figure 3 The protuberance removed was proved to be a crablike *Phthirus pubis* under high power lens. It was excreting the rusty granules (feces) from its abdomen (black arrow)

However, the Phthiriasis palpebrarum can easily be neglected because the crab louse often buries its semitransparent body deep into the lid margin. Furthermore, the translucent oval nits located into the bases of the eyelashes often confused with the crusty excretions of seborrheic blepharitis. So sometimes this disease will be misdiagnosed as common blepharitis.

In this case, according to the patient, some small insects ever crawled over his eyelid, so we suspected it might be certain kind of parasite. But we initially did not observe moving crab louse, neither its nits on the lids and eyelashes. The environment round the lid is relatively clean, except for some rusty granules. It was really difficult to make a positive diagnosis especially for those inexperienced doctors. Not until the removed scab-like things were observed under the slit lamp, could we make the final conclusion. This patient had ever been unsuccessfully treated. That might explain why we could not find the crab louse and nits on the eyelashes. The moving insects outside were killed or cleaned, but those burrowing survived. To summarize, the diagnosis of phthiriasis palpebrarum requires: Firstly, inquiring the detailed history and suspicion of the disease (lack of response of blepharitis to topical antibiotic and corticosteroid application); Secondly, examination of the eyelashes and lid margins with the slit lamp; Thirdly, identification of the parasite under the light microscope. Keep alert when mild marginal blepharitis with brown protuberances containing small dark spots is observed. A number of treatment options are available for phthiriasis palpebrarum. They include cryotherapy, argon laser photocoagulation, fluorescein eyedrops 20%, physostigmine 0.25%, lindane 1%, petroleum gel, yellow mercuric oxide ointment 1%, Malathion drops 1% or Malathion shampoo 1%, oral ivermectin and pilocarpine gel 4%. However, the simplest technique is direct removal of the lice and nits with fine forceps, or cut the eyelashes. Family members, sexual contacts, and close companions should all be examined and treated appropriately.

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