

# Pthiriasis Palpebrarum: A Case of Eyelash Infestation

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## ABSTRACT

We present a case of Pthiriasis palpebrarum, an eyelid infestation caused by Pthiriasis pubis. The report centers around a 38-year-old male who sought medical attention for multiple symptoms, including a sensation of lid heaviness, pain, and pruritus localized to the left eye. On slit lamp examination left eyelid and lashes were infested with lice and nits. The patient was treated with anti-lice shampoo, anti-allergic drops, anti-allergic tablet and topical antibiotic ointment in combination with steroids. One week later, all lashes and eye brows were clean, with a few dead lice eggs; that were extracted with forceps on slit lamp. While Pthiriasis palpebrarum is acknowledged as an infrequent cause of blepharo conjunctivitis, our case underscores the potential for this condition to manifest as an isolated eyelid infestation. Importantly, the similarities it shares with lid eczema and blepharitis underscore the diagnostic challenges that may arise in clinical practice.

**Key Words:** Pthiriasis palpebrarum, blepharo conjunctivitis, seborrheic blepharitis.

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## INTRODUCTION

Phthiriasis pubis, often known as crab lice, is a rare infestation of eyelids that results in Phthiriasis palpebrarum.<sup>1</sup> Most pediculus species infest hair (scalp, axilla, thigh, trunk and groin), However, infestation of eyelids and cilia is rare. Head louse can rarely infest eyelids; it is primarily due to crab lice.<sup>2</sup>

Phthiriasis palpebrarum can additionally lead to Blepharoconjunctivitis.<sup>3</sup> 1 – 2% of people globally are infested with phthiriasis pubis.<sup>4</sup> The infestation is typically transferred through sexual contact; it can also be spread by poor hygiene, direct skin-to-skin contact with contaminated hands or fabrics (such as clothes, bed sheets and towels).<sup>5</sup>

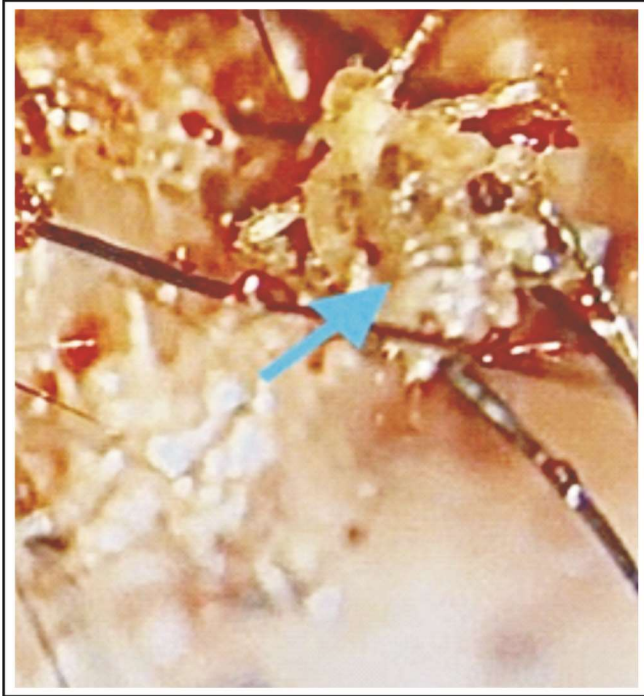
Most individuals with infestations are sexually

active and between the ages of 15 and 45. However, it is also reported in other age groups, such as children (under 6 years old).<sup>6</sup>

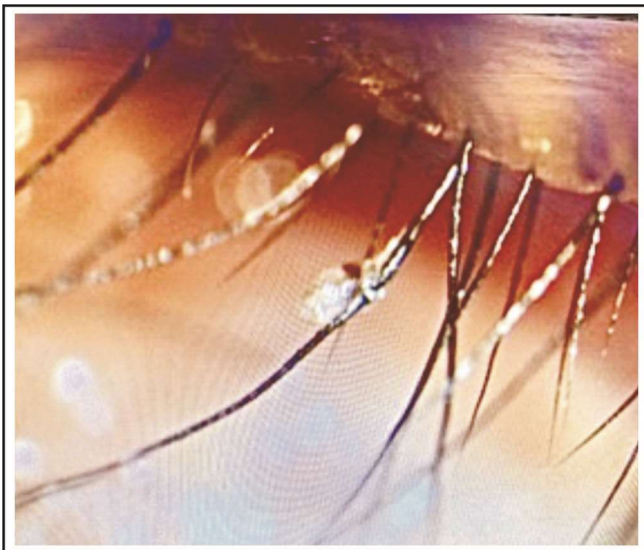
## CASE PRESENTATION

A 38-year-old male, who was a known case of hypertension, visited ophthalmology outpatient department at a tertiary care hospital of Karachi. The patient presented with complaint of heaviness, itching and pain over the lower eyelid in the left eye for about a month.

He had previous history of trauma in right eye in childhood. In addition, he had a corneal infection in his left eye that developed into an abscess, he had undergone left eye Argon laser to blood vessels in preparation for future corneal transplant. On examination, his visual acuity in right eye was 6/15 whereas, counting fingers in left eye. Pupil of the right eye was mid dilated and non-reactive. Intraocular pressure was 18mmHg. Cornea of the left eye was opaque and vascularized and the eyelids, eyelashes, and eyebrows were covered in nits and lice (Figure 1). The “lice” appeared to be moving and sucking blood



**Figure 1:** Slit Lamp Examination. Blue arrow indicates Lice in the eyelash.



**Figure 2:** Slit Lamp Examination. Post treatment clean eye lash.

from microscopic skin nicks. He was advised to scrub his lashes and brows with an anti-lice shampoo (pyrethrins and piperonylbutoxide) 6 hourly, followed by applying an antibiotic ointment in combination with steroids (tobramycin and dexamethasone) at night. He was also prescribed anti-allergic drops (0.2% olopatadine HCl) 2 – 3 times in a day and an anti-allergic tablet (cetirizine 2HCl) to relieve his

symptoms. He was also instructed to keep his eyebrows and lids clean. He was called for a follow up after 7 days.

One week later, eye lashes and brows were clean and showed only a few dead eggs of lice which were manually removed on slit lamp with Forceps, (Figure 2)<sup>2</sup>.

## DISCUSSION

Adult lice typically infest hair on scalp, axilla, chest, pubic region and in rare cases, the eyebrows and eyelashes. Phthirus pubis, which is spread from the vaginal region to the eye through hand contact, is the most frequent cause of lice infestation on the eyebrows or eyelashes.<sup>7</sup> School going children are the main target of head lice infestations, which are spread by head-to-head contact. Crab louse infestation is most common in adults. However, any other age group can be affected.<sup>8</sup> In developed nations, Phthiriasis palpebrarum is infrequent and mainly manifests in patients with poor personal hygiene.<sup>9</sup>

Primary symptom of Phthiriasis palpebrarum is itchiness of the eyelids. Diffuse inflammation can result from pruritus, persistent itching and rubbing of the eyelashes. Less frequently noticed symptoms include pain, a burning sensation, irritation, redness, hyperemia, whitish discharge and a gritty sensation. It could be mistaken for other types of blepharitis, particularly seborrheic blepharitis as it gives a crusty and flaky appearance.

Due to the parasite's small size, translucent nature, and nits, which make them hardly visible, physicians seldom meet phthiriasis palpebrarum, which increases the risk of incorrect diagnosis. There have been few reports of lid abscess as well.<sup>10</sup>

Treatment options for phthiriasis palpebrarum include; topical drugs (yellow 1% mercuric oxide ointment, parasympathetic agents, 0.3% tobramycin ointment, 0.5% moxifloxacin ophthalmic ointment, 20% fluorescein and petroleum jelly. Some other topical anti parasitic agents may also be prescribed such as 50% tea tree oil, natural pyrethrins, pyrethroids topical 0.5 – 1% malathion or shampoo and lindane), mechanical removal of the nits and lice with the forceps.

Oral Ivermectin used as a single dose treatment in adults; however, a second dose may be needed to prevent newly formed nits, oral ivermectin is not

prescribed for children under the age of 5 years or a child whose weight is less than fifteen kilograms. It is contraindicated in pregnant and lactating mothers as it can cross the blood brain barrier. The mechanism of ivermectin is to block the chemical signals through synaptic channels of the nerve, resulting in the paralysis of the parasite ultimately leading to its death.

Family members, intimate partners and close friends should be examined properly and treated accordingly. Clothes, sheets and towels used by the patient within 2 – 3 days prior to the start of the treatment should be washed in the machine (with water at least 55°C, 30 minutes) and tumble-dried for 5 – 10 minutes.<sup>10</sup>

In our case, the patient was advised treatment for 7 days. On follow up, all the lashes and brows were clean and showed a few dead eggs which were removed manually on a slit lamp with forceps.

## CONCLUSION

Phthiriasis palpebrarum is a rare but highly contagious disease for which we need to improve our sanitary habits that are washing hands, trimming pubic hair, cleaning eyes with soap and water. There should be public awareness regarding unhygienic physical contacts which lead to infestation. Avoid multiple sexual partners, practice safe sex with stable partners and keep good hygiene.

**Conflict of Interest:** Authors declared no conflict of interest.

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## Authors' Designation and Contribution

Tanveer Chaudhry; Consultant Ophthalmologist: *Concepts, Design, Literature Search, Data Acquisition, Data Analysis, Statistical Analysis, Manuscript Preparation, Manuscript Editing, Manuscript Review.*

Shaiza Qureshi; Medical Officer: *Concepts, Design, Literature Search, Data Acquisition, Data Analysis, Statistical Analysis, Manuscript Preparation, Manuscript Editing, Manuscript Review.*

Maryam Qureshi; Medical Officer: *Design, Literature Search, Data Acquisition, Data Analysis, Statistical Analysis, Manuscript Preparation, Manuscript Review.*

