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Phthiriasis Palpebrarum- A Rare Case Scenario

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Abstract
Phthiriasis palpebrarum (PP) is the infestation of eyelids caused by the ectoparasite Phthirus pubis, frequently misdiagnosed as allergic conjunctivitis, blepharitis or dermatitis. A 40-year-old patient with phthiriasis palpebrarum was successfully treated with local application of petrolatum jelly and an antibiotic ointment over the eyelashes and eyebrows of both the eyes with 1% permethrin cream and oral Albendazole with Ivermectin combination, followed by the mechanical removal of all ectoparasites and the nits, but without trimming of the eyelashes as cosmesis being the patient's primary concern.

Keywords*: Blepharitis, crab louse, phthiriasis palpebrarum*

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I. Introduction

Phthiriasis palpebrarum (PP) is the rare infestation of eyelids caused by the ectoparasite Phthiriasis pubis.[1] Mostly seen in low socioeconomic communities and overcrowded areas with poor hygienic conditions of living. PP is frequently misdiagnosed as allergic conjunctivitis, blepharitis or dermatitis due to the deep burial of the ectoparasite and presence of crusts on the eyelashes. Close contact and sharing linens with an already infected person is believed to be the predominant mode of transmission in the absence of history of sexual contact with an infested patient. PP manifests as chronic irritation and itching, excoriation of the eyelids and secondary local and systemic bacterial infection. There is no standard treatment of choice for PP although various treatment modalities have been described. In addition, there is risk of the treating medical personnel being infested during the course of treatment.

II. Case Report

A 40 year old female patient was brought to our ophthalmic outpatient department with complaints of itching in both eyes from the last 1 month. Starting from the onset of symptoms, she was treated elsewhere as a case of blepharitis with no improvement. Her visual acuity was 20/20 both eyes and slit-lamp examination revealed multiple red, crusty eyelid margins and mild conjunctival hyperaemia, with presence of lice moving over the eyelashes, along with nits at the base [Figure 1]. She was diagnosed as a case of bilateral PP. There was no history of similar complaints in family members, overcrowding or sexual contact with a louse infested individual. General examination did not reveal lice anywhere else on the body. She was treated with topical application of petrolatum jelly over the eyelashes on both the eyes with thorough rinsing with soap and water, followed by the mechanical removal of all parasites proved fruitful for debulking. Local application of antibiotic eye ointment and 1 % permethrin was advised and a dermatologist's opinion was taken for further evaluation. Systemic Albendazole 400mg with Ivermectin 12 mg combination was given for 5 days. Removal of each nit from the eyelash was a task seeking lot of patience, as nits were then removed without any mechanical trimming of eyelashes and the patient was followed upto 3 weeks.

III. Discussion

There are three varieties of lice infecting humans. They are Pediculus humanus capitis (head louse), Pediculus humanus corporis (body louse) and P. pubis (pubic or crab louse).[1] P. pubis mainly lives on the hair of pubic and inguinal regions and gets its entry into the eyelid area by direct or indirect contact. Overcrowding, sharing of beds or infected clothing or sexual contact with a louse-infested individual, all play a role in transmission of P. pubis.[2-4] The common symptoms are itching and irritation,[3] although it can be incidentally found in a routine ophthalmological examination. The presentation includes crusting and matting of eyelashes and is often bilateral. The pruritic lid margin can easily be misdiagnosed as blepharitis or eczema.

There are various modes of treatment described in literature including manual removal of adults and nits using forceps, trimming of eyelashes, argon laser therapy, cryotherapy, 1% gamma-benzene hexachloride cream, 1% mercuric oxide ointment, physostigmine eye ointment, petrolatum ointment, pilocarpine 4% gel, malathion shampoo and permethrine 5% ointment and 20% fluorescein solution and oral ivermectin.[1,4] There is documentation of immediate death of the adult lice upon application of 20% fluorescein by Mathew et al,[4] though the nits seem to be unaffected.

Contrary to Ashraf M, et al[5] which exclaimed manual removal of nits with forceps being a tedious process, we, on the other hand in this case, held our nerves calmly to manually remove all the nits without even trimming eyelashes from its base as cosmesis being her primary concern. After an hour long exercise of manual removal of all nits, we indeed learnt to keep patience and won patient's faith and gratitude.

In our case, we have used petrolatum jelly (Vaseline) and an antibiotic ointment (Moxifloxacin 0.5%) over the eyelashes. Its mechanism of action is still unknown. However, it covers the lice, probably closes breathing holes, and prevents their respiration or moving. Permethrin is a synthetic compound based on the insecticidal components of naturally occurring permethrins and is used to treat head lice and crab lice.[6] It kills both live lice and hatched lice (eggs), but not unhatched eggs; because of its lack of percutaneous absorption, toxicity is not a consideration. It is almost 100% pediculicide and 20 to 70% ovicidal.

Thence, the take home message is that whenever any dermatological references comes to an ophthalmologist or as a post-grad student/trainee, we tend to miss or rule out anchored ectoparasite, hence, due care and emphasis should always be kept for a thorough slit lamp examination and to differentiate eczematous lesions from a deeply stuck ectoparasite thus giving it a masquerade.

In addition, family members, sexual contacts, and close companions should be examined and treated appropriately; clothing, towels, and bedding used by the patient within two to three days before treatment began should be deloused and machine washed in order to prevent re-infection(with water at least 55◦C, 30 minutes) and drywarmed and ironed. Items that cannot be washed can be dry cleaned or stored in a sealed plastic bag for two weeks. [7]

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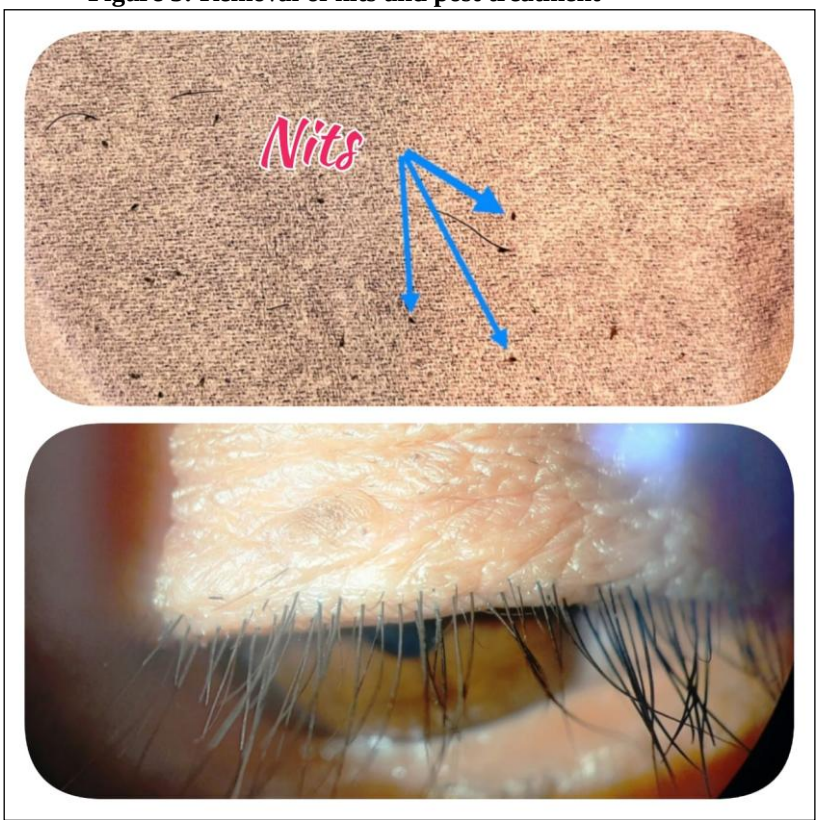
Figure 1 shows ectoparasite on the cilia

Figure 2: shows multiple nits with anchored ectoparasite on upper lid

Figure 3: Removal of nits and post treatment



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