Case Report

Phthiriasis Palpebrarum Masquerading as Squamous Blepharitis

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Abstract

Phthiriasis palpebrarum caused by the parasite Pthirus pubis, is an uncommon cause of blepharitis under unhygienic conditions in sexually active adults. It is often misdiagnosed as bacterial, viral, allergic conjunctivitis or seborrheic blepharo-conjunctivitis. A 35-years-old man presented with itching & irritation over eyelids. On examination, multiple translucent oval nits and lice adhering to the eyelashes were found. In this case report we want to emphasize on the rarity of this case and that commonly available petroleum jelly and 1% permethrin shampoo used together are simple, cheap, safe, and effective treatment to combat Phthiriasis palpebrarum. Also, patient education regarding hygiene is of paramount importance whenever phthiriasis is encountered.

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Keywords: *Phthiriasis Palpebrarum, Squamous Blepharitis, Petroleum Jelly, Permethrin.*

Introduction

Parasitic infestation in human eyes is rarely encountered. Phthiriasis palpebrarum caused by Pthirus pubis (Crab louse), although uncommon, is known to cause blepharo-conjunctivitis. Phthiriasis is usually found in young adults having poor genital hygiene and is transmitted sexually from the genital area to the eyes by hand. In children, phthiriasis can be found on both eyelashes and eyebrows and mother can be the source of infestation. However, some case reports highlight the concern for child abuse in such cases. Common symptoms are itching and irritation of eyelid margins and common signs are blood stained thickened discharge on lid margin and presence of nits and louse adhering to the roots of eyelashes. This condition is often misdiagnosed due to its rarity and hence it may be confused with other forms of blepharitis, unless one looks for these signs. Diagnosis can be confirmed by slit lamp examination of the louse. Morphologically, Pthirus pubis may be distinguished from Pediculus by its broader abdomen and stronger second and third pair of legs. Adult crab louse can also affect other areas like pubic area, thighs, abdomen, and axillae.[1-3]

Case report

A 35 years old man, resident of slum presented to our OPD with itching in bilateral upper lids & irritation in the both eyes for two months. Patient had disturbed sleep due to aggravation of symptoms at night. On examination, the visual acuity of the patient in both eye (BE) was 6/6. Multiple white spots were observed near the base and shaft of bilateral upper eyelashes. The spots were granular, fixed, difficult to dislodge and were not affected by lid movements. On slit-lamp examination, many translucent oval nits were found to firmly adhere to the base and shaft of the cilia (figure 1). The nits were concentrated in the middle third of the lashes. There was mild hyperaemia and excoriation of the outer margin of both the upper lids. 1-2 adult lice were found adhering to the lid margins (figure 2). No hyperaemia or discharge was observed in the conjunctiva. The patient did not have diabetes or any chronic disease. A diagnosis of pthirus palpebrarum was made and dermatology consultation was done to rule out Phthiriasis pubis. Our patient was treated successfully by sequential application of petroleum jelly and 1% permethrin shampoo over eyelashes along with two

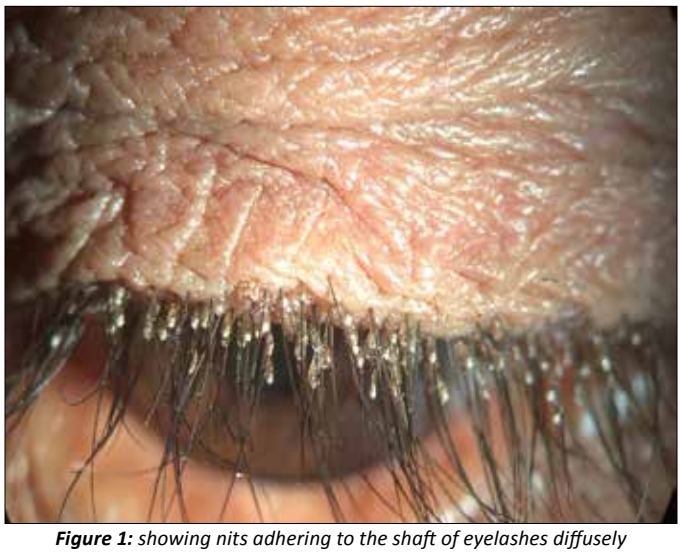

Figure 1: *showing nits adhering to the shaft of eyelashes diffusely*

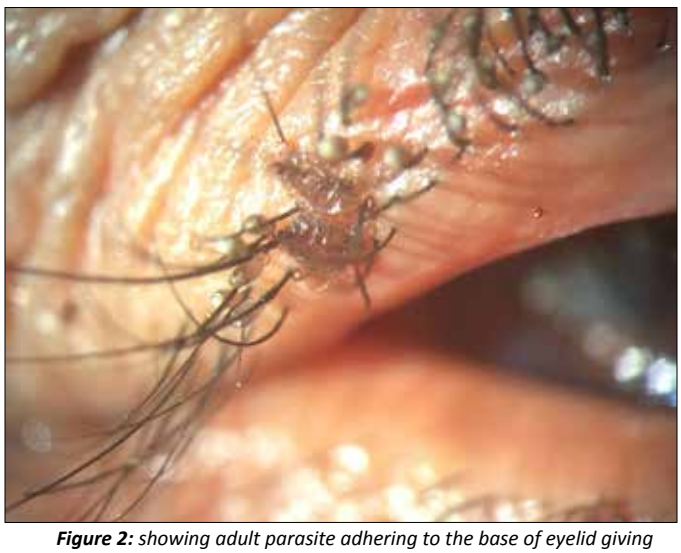

Figure 2: *showing adult parasite adhering to the base of eyelid giving crusty appearance*

doses of oral ivermectin 12 mg given 1 week apart. Although petroleum jelly and 1% permethrin shampoo may be used alone separately, they were applied together to increase the efficacy and to reduce the likelihood of recurrence. With this treatment regimen, all the parasites over the eyelashes were destroyed within 3 days. No louse or nit were seen at one week follow up and on long-term follow up.

Discussion

Phthiriasis palpebrarum is a rare parasitic infestation of lids which presents as itching and irritation in response to dermal hypersensitivity caused by the parasite pthirus pubis's saliva and excreta over the lid margins. It is usually observed in people living in crowded places and in those having poor hygiene. Brown-reddish granular accumulations at the base of the eyelashes along with lice and eggs on the lashes are tell- tale signs of phthiriasis palpebrarum. Nits of the parasite are seen adhering the lashes while the parasite itself clings to the base.[4] The nits along with the faeces of parasite appears to be the brown-reddish granular deposition and mimic seborrheic blepharitis while the redness caused in response to it mimics allergic dermatitis.

In our patient, on screening of eyelashes and lid margin during slit lamp examination, the alleged parasite was identified along with the nits physically. This along with marked itching enabled the diagnosis of this contagious parasitosis. Due to isolated infestation of the eyelids with this parasite and because of the small size and barely visible translucent characteristics of the parasite and its nits, such cases may often be overlooked. Various other manifestations due to this parasite include ulcerative blepharitis, conjunctivitis, marginal keratitis and preauricular lymphadenopathy in case of secondary bacterial infection of eyelid excoriations or parasite bites. Phthiriasis palpebrarum usually affects both the eyes that too upper eyelids and unilateral involvement is less common. Differential diagnosis of phthiriasis palpebrarum includes various etiologies of anterior blepharitis like seborrheic blepharitis (with sebum deposits on the eyelashes mimicking phthiriasis), eyelid eczema (including atopic dermatitis), staphylococcal blepharitis, rosacea blepharitis, and demodicosis. Eyelid infestation with tick larva may also have a similar clinical aspect as phthiriasis palpebrarum. Recommended treatment options for phthiriasis palpebrarum are mechanical removal with forceps, trimming or plucking of affected eye lashes, cryotherapy, argon laser photocoagulation followed by treatment with any of the pediculicides like fluorescein eye drops 20%, physostigmine 0.25%, lindane 1%, petroleum jelly, yellow mercuric oxide ointment 1%, malathion drops 1% or malathion shampoo 1%, 1% gamma-benzene hexachloride cream, pyrethrin ointment, permethrin 1% cream, kerosene, and oral ivermectin and pilocarpine gel 4%.[5-7] However, none of the pediculicides are 100% ovicidal. 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 initiation of treatment should be washed in hot water thoroughly.

In our patient, we used a combination of petroleum jelly and 1% permethrin shampoo. Petroleum jelly (Vaseline) is made from waxy petroleum material that covers the lice, closes their breathing holes thereby preventing respiration and movement.[8,9] It is not ovicidal. On the other hand, permethrin is a synthetic insecticidal used to treat head lice and crab lice. It kills both live lice and hatched lice (eggs), but not unhatched eggs because of its lack of percutaneous absorption. It has 100% pediculicidal and 20- 70% ovicidal action.[10] As none of the treatment is 100% ovicidal, it is advisable to follow up the patient after a week to check the success of treatment as by that time the living larvae if any will come out of the nits. If nymphs or lice are found after a week, the treatment is regarded as unsuccessful and we should switch to another skin treatment. A solution to this is the use of oral ivermectin to eradicate the disease as we used in our case.

Because of better ocular hygiene and cleanliness, this infestation is rarely seen these days and hence its clinical suspicion remains low and is usually misdiagnosed as squamous blepharitis. Hence, this case highlights the importance of thorough slit-lamp examination in patients with blepharitis and eczema and the need for dermatology consultation in suspicious cases. Since phthiriasis palpebrarum is known to have sexual transmission, patients should undergo screening for other sexually transmitted infections.

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