

Phthiriasis Palpebrarum - Unusual Presentation with Usual Pathogen: A Case Report

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Abstract:

Purpose: Phthiriasis palpebrarum is infestation of eye lids with *Phthirus pubis* which predominantly presents as pruritus of eyelids. There is a good probability for misdiagnosis as anterior blepharitis or conjunctivitis in the absence of pruritus.

Case report: Here we report the case of Phthiriasis palpebrarum in an elderly female presented with history of recurrent bilateral ocular redness and blurring of vision. Patient was previously treated as conjunctivitis elsewhere. On careful slit-lamp examination, patient was found to have nits, multiple lice anchored to eyelashes, follicular reaction in conjunctiva and bilateral corneal opacities. The patient was treated successfully by mechanical removal of nits and adult lice and topical application of petroleum jelly.

Conclusion: Phthiriasis palpebrarum can have unusual presentation with follicular hyperaemia and corneal opacities even without pruritus. Hence careful slit-lamp examination of ocular adnexa is important in patients with features of ocular irritation for prompt diagnosis and timely management.

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I. Introduction

Phthirus pubis also known as crab louse is a haemophagous, ectoparasite that infests predominantly hairy regions of inguinal, pubic and axillary areas of body. Prevalence of crab louse infestation is around 2% in general human population. Sometimes it can spread to eyelashes through direct or sexual contact and causes relatively uncommon condition known as Phthiriasis palpebrarum^[1] or Phthiriasis ciliaris. In majority, children^[2] and sexually active young individuals are affected. Elderly population are rarely involved. This is also predominantly seen in low socioeconomic groups, poor hygiene and overcrowding^[3]. Pubic lice are spread in adults and adolescents through sexual contact. In children, spread occurs by close contact, sleeping in the same bed with infested parents, or sexual maltreatment. The common clinical presentation is with symptoms and signs of itching, burning sensation, erythema of eye lids, white crusts at ocular adnexa, conjunctivitis and in rare cases marginal keratitis^[4].

Here we present a case report of Phthiriasis palpebrarum in a 58 years sexually inactive elderly female with poor socio economic back ground with an unusual clinical presentation of recurrent ocular redness, blurring of vision and bilateral symmetrical corneal stromal opacities without pruritus.

II. Case Report

A 58 years old female from lower socioeconomic group presented to out-patient department with chief complaints of recurrent ocular redness and blurring of vision in both eyes for the past 5 months duration. Patient denies history of pruritus, trauma, autoimmune diseases and atopy. Patient gives history of recurrent episodes of similar complaints and was misdiagnosed and treated as conjunctivitis and symptoms persisted. Her best corrected visual acuity (BCVA) was 6/12 in both eyes. On gross examination of eye lids under slit lamp revealed blood-stained debris and white crusts at the base and along the shaft of cilia in both eyes. On high-magnification slit-lamp examination, multiple white translucent oval nits (Fig.1) and moving adult lice (Fig.2) that are firmly adherent to eye lashes in each of the eye were found. Mild conjunctival congestion and follicular reaction noted without discharge. Cornea showed bilateral symmetrical anterior stromal scarring in the interpalpebral area without any vascularisation (Fig.3). The lesions did not take up any stain. Anterior segment and posterior segment examination were within normal limits except for early cataractous changes in both eyes. For diagnostic confirmation, adult lice were examined under high-magnification light microscope which revealed crab louse with round body with second and third pair of stout legs than the first pair along with large claws (Fig.4). Patient was treated by mechanically removing adult lice and nits with gentle forceps. Removing nits was cumbersome due to its strong adherence to cilia. Patient was given twice daily topical application of petroleum jelly to the eyelashes; topical Moxifloxacin eye drops 4 times a day for 2 weeks and topical pyrethrum shampoo. Patient referred to dermatology clinic to look for lice in other body parts and found

negative. Patient was also screened for venereal diseases. Patient was advised to wash all the clothing, beddings and screening of other family members. At 10 days follow-up no nits or lice were found and congestion relieved. Patient was advised to continue treatment for another week and advised follow up after 2 weeks.



Figure: 1. transparent nits along the shaft of cilia (blue arrow)

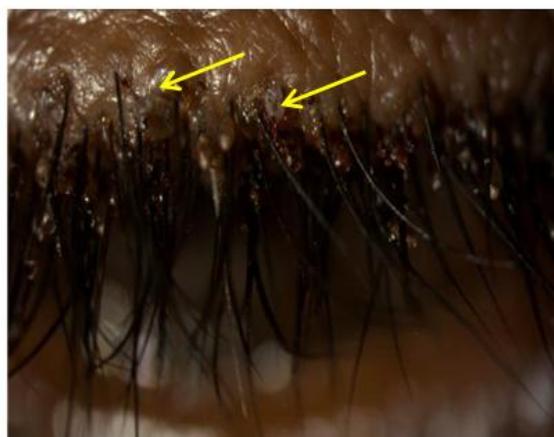


Figure: 2. adult lice at the base of cilia (yellow arrows)



Figure: 3. corneal opacities in the interpalpebral area



Figure: 4. adult louse under light microscopy with typical morphology

III. Discussion

Humans can be infested with mainly three types of lice (i.e. pediculus capitis or head louse, pediculus corporis or body louse and phthirus pubis or crab louse)^[5]. Phthirus pubis commonly appears on the hair bearing areas of the body like pubic, inguinal, thighs, scalp and axillary areas^[6] and sometimes it can crawl to other hairy areas of body. When eyelashes are infested by phthirus pubis it is known as Phthiriasis palpebrarum. Crab louse is an obligate parasite and can be differentiated from other body louse by having crab like round body with second and third stout pair of legs and large claws which can facilitate clinging to the hair^[7] as demonstrated in present case report shown in Fig.4. It can stay outside body only for 24-48 hours^[7].

It spreads mainly by sexual contact or direct close contacts. Indirect transmission can be by sharing clothes, bedding linen infested with nits. It is more common in low socioeconomic groups due to overcrowding and poor hygienic conditions^[5]. Presence of infection in children can be a concern for child abuse^[3]. It affects mainly children and young adults^[8].

It is usually bilateral in origin although unilateral cases been reported^[9]. The chief complaint in most of the cases is pruritus around eye lashes. It can be easily missed with blepharitis due to different etiologies like seborrheic, infective or allergic origin. Pruritus of other hair bearing areas of body suggests infestation by crab louse in those parts. Other associated symptoms and signs include pain and burning sensation of eye lid, erythema of eye lids, follicular reaction of conjunctiva and preauricular lymphadenopathy especially in secondary bacterial infections^[11]. In most of the case reports corneas were clear although few reports showed marginal keratitis changes^[10]. In our present case reports patient has no complaint of pruritus and corneal

involvement showed stromal scarring without any activity at presentation. History of trauma or possibility of previous viral infection excluded from history and clinical examination. Careful slit lamp examination helps in diagnosis and microscopical examination of lice and nits confirms the diagnosis.

Various treatment modalities were available in treating phthiriasis palpebrarum. Those include mechanical^{[11],[12]}, medical (topical, oral), cryotherapy^[13] and laser photocoagulation^[14]. Mechanical includes physically removing all nits and lice from eye lashes with gentle forceps which can be difficult in uncooperative patients especially in children. In such cases cutting of eyelashes is recommended. Medical therapy include using topical medications like yellow mercuric oxide, 20% fluorescein drops, parasymphomimetic agents like pilocarpine gel 4%, physostigmine 0.25%, liquid petroleum ointment, 1% malathion shampoo, 1% gamma benzene hexachloride, topical pyrethrin ointment, 1% permethrin cream application of eye lashes and other affected parts of body^[15] and botulinum toxin with a swab stick^[1]. Single dose of oral ivermectin is prescribed in few patients (contraindication: children below 5 years, pregnant and lactating mothers), 2nd dose if indicated after 10 days^[16]. All other family members, close and sexual contacts should be screened and treated if required. All bedding linen, clothing should be washed in hot water at 50 degree C for half an hour and allowed it to be sundried before starting the treatment^[17]. In the present case report patient was given petroleum jelly twice a day application for 2 weeks, moxicip eye drops 4 times a day application to prevent secondary bacterial infection and 1% permethrin shampoo application of eye lashes and other hairy areas of body.

IV. Conclusion

Phthiriasis palpebrarum can also present in elderly people especially in lower socioeconomic groups. It can be easily missed as blepharitis or conjunctivitis, hence careful examination under slit lamp is needed for prompt diagnosis and treatment. Corneal involvement can be there in undetected long standing cases.

References

- [1]. Badri T, Hafsi W. Phthiriasis Palpebrarum. Treasure Island (FL):StatPearls(internet) 2020;2021.
- [2]. Neri I, Bassi A, Viridi A, Gurioli C, Patrizi A. Phthiriasis palpebrarum. QJM. 2016;109(8):557-558.
- [3]. Ryan MF. Phthiriasis palpebrarum infection: A concern for child abuse. J Emerg Med. 2014;46(6):159-162.
- [4]. Yi JW, Li L, Luo da W. Phthiriasis palpebrarum misdiagnosed as allergic blepharoconjunctivitis in a 6-year-old girl. Niger J Clin Pract. 2014;17(4):537-539.
- [5]. Ko C.J., Elston D.M.. Pediculosis. J Am Acad Dermatol. 2004; 50(1):1-12.
- [6]. Chosidow O. Scabies and pediculosis. Lancet. 2000; 355(9206):819-826.
- [7]. Padhi TR, Das S, Sharma S, Rath S, Rath S, Tripathy D, Panda KG, Basu S, Besirli CG. Ocular parasitoses: A comprehensive review. Survey of ophthalmology. 2017;62(2):161-189.
- [8]. Panadero-Fontán R, Otranto D. Arthropods affecting the human eye. Veterinary parasitology. 2015;208(1-2):84-93.
- [9]. Sahu S, Bhutia TW, Shrestha V, Kamble VK. Unilateral phthiriasis palpebrarum infestation. An unusual case of pruritus. J Clin Ophthalmol Res. 2020;8(2):70-72.
- [10]. Ittyerah T P, Fernandez S T, Kutty K N. Marginal keratitis produced by phthirus pubes. Indian J Ophthalmol. 1976;24(2):21-22.
- [11]. K.-C. Yoon, H.-Y. Park, M.-S. Seo, and Y.-G. Park. Mechanical treatment of phthiriasis palpebrarum. Korean Journal of Ophthalmology. 2003;17(1):71-73.
- [12]. B. Kiran, S. A. Kareem, V. Illamani, and S. Chitralekha. Case of Phthiriasis palpebrarum with blepheroconjunctivitis. Indian Journal of Medical Microbiology. 2012;30(3):354-356.
- [13]. K. J. Awan. Cryotherapy in phthiriasis palpebrarum. American Journal of Ophthalmology. 1977;83(6):906-907.
- [14]. K. J. Awan. Argon laser phototherapy of Phthiriasis palpebrarum. Ophthalmic Surgery. 1986;17(12):813-814.
- [15]. Yunus Karabela, Gurkan Yardimci, Isik Yildirim, Eray Atalay, Semsî Nur Karabela. Treatment of Phthiriasis Palpebrarum and Crab Louse: Petrolatum Jelly and 1% Permethrin Shampoo. Case Reports in Medicine. 2015;2015:287906.
- [16]. C. N. Burkhart and C. G. Burkhart. Oral ivermectin therapy for phthiriasis palpebrum. Archives of Ophthalmology. 2000;118(1):134-135.
- [17]. N. Kumar, B. Dong, and C. Jenkins. Pubic lice effectively treated with Pilogel. Eye. 2003;17(4):538-539.

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