Phthiriasis Palpebrarum: An Unusual Blepharoconjunctivitis

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Pe dic u lo sis or phthiriasis oc curs in hu mans with poor per sonal hy giene or over crowded liv ing en viron ment. Typically, Pediculus capitis is found in scalp hair; Pediculus corporis on the seams of cloth ing; and Phthirus pubis (crab louse) in the pu bic hairs. Rarely adult lice may iso lated in fest eye brows and eye lashes a nd cause phthiriasis palpebrarum. Phthiriasis palpebrarum in chil dren and ad o le cents has been described. 1-4 Since the pubic louse dies quickly away from its host, trans mis sion is usu ally by close body con tact (es pe cially by sex ual con tact). In fants and chil dren are of ten in fested by di rect pas sage of the lice from the con tact with their par ent. In ter na tional com mu ni ca tion and sex ual free dom have in creased the in ci dence of blepharoconjunctivitis due to Phthirus pubis. It is, how ever, of ten misdiagnosed and un der treated be cause of the fail ure of phy si cians to rec og nize Phthirus pubis. We re port a case of a 30-year-old woman with per sis tent itch ing in the left eye lid which was un suc cess fully treated un der the di agno sis of al ler gic blepharoconjunctivitis. Care ful oph thal mic ex am i nation re vealed seven bugs with mul ti ple red pin point ex cre tions and nu mer ous small trans lu cent oval eggs (nits) coat ing the eye lashes. The pa tient was suc cess fully treated with me chan i cal re moval of all the lice and nits from the eye lashes. The spec i men proved histopathologi cally to be the Phthirus pubisin festa tion. The Phthirus pubis in festa tion is usu ally as so ciated with poor hy giene in over crowded or un de vel oped coun tries. How ever, it may be come a no ta ble prob lem be cause of fre quent trav el ing and com mer cial activi ties across the dif fer ent coun tries. [Chin Med J (Taipei) 2002;65:498-500]

Case Report

Phthiriasis Palpebrarum: An Unusual Blepharoconjunctivitis

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Key Words
 crab louse; phthiriasis palpebrarum; Phthirus pubis

Phthiriasis palpebrarum is an un usual cause of blepharoconjunctivitis and may eas ily be over looked be cause of the fail ure of phy si cians to rec og nize Phthirus pubis. We re port a case of a 30-year-old woman with per sis tent itch ing in the left eye lid which was un suc cess fully treated un der the di agno sis of al ler gic blepharoconjunctivitis. Care ful oph thal mic ex am i nation re vealed seven bugs with mul ti ple red pin point ex cre tions and nu mer ous small trans lu cent oval eggs (nits) coat ing the eye lashes. The pa tient was suc cess fully treated with me chan i cal re moval of all the lice and nits from the eye lashes. The spec i men proved histopathologi cally to be the Phthirus pubisin festa tion. The Phthirus pubis in festa tion is usu ally as so ciated with poor hy giene in over crowded or un de vel oped coun tries. How ever, it may be come a no ta ble prob lem be cause of fre quent trav el ing and com mer cial activi ties across the dif fer ent coun tries. [Chin Med J (Taipei) 2002;65:498-500]

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revealed evidence of blepharconjunctivitis with multiple red pinpoint excretions over the left upper eyelid margin. With careful inspection, seven bugs (later proved to be the crab louse, *Phthirus pubis*) with numerous translucent oval eggs were noted around the base of the eye lashes (Fig. 1). No lice or nits were seen in the fellow eye or the other hairy areas. The patient denied any history of venereal disease, louse infestation elsewhere in the body, or sexual contacts except her husband who just came back from China. A manual removal of all the lice and the nits by the forceps was done carefully. Examination under light microscopy revealed the bugs to be *Phthirus pubis* by their morphologic characteristics (Fig. 2). The patient was reexamined in a week to ensure that all of the parasites were removed. The patient and her husband were advised to avoid close body contact until completion of treatment and follow-up.

**Discussion**

Adult lice in fest hairs of the scalp, axilla, chest, pubic, rarely, eye brows and eye lashes. In festation of lice on eyebrows or eyelashes is most commonly caused by *Phthirus pubis*, rarely by *Pediculus capitis*, and never by *Pediculus corporis*. The transference to the eye is supposed to achieve through the hand contact to the genital area, which is perhaps the reason only one eye is affected. Both eyes are in volved only when the duration is prolonged. Occasionally, isolated palpebral involvement has been described. The pubic louse can be identified as a 2 mm long, grayish-white insect (smaller than a body louse) with a distinctly crab-like appearance (Fig. 2). The louse has three sets of legs with claws (Fig. 2), which are adapted for firm at tachment to hair for sucking blood. Four sets of small conical feet support the posterior abdomen and are involved in movement. They lay seven to ten eggs (nits) per day. The incubation period is usually between 5 days and several weeks. The tiny, translucent oval eggs are cemented to the bases of the hair shafts and of ten confused with the crusty flakes of seborrheic blepharitis. There may be either no symptoms or itch due to hypersensitivity to the feeding lice. Blepharitis with marked conjunctival in flam mation, preauricular lymphadenopathy and secondary infection at the site of lice bite may also occur. The classical blue spots, maculae caeruleae, may be seen on the infected lid margins. Marginal keratitis is produced by *Phthirus pubis* is rare. Diagnosis is based on the finding of adult lice and/or eggs. Although lice is hardly detected be cause of semitransparency and deep burrowing in the lid margin, physicians can find their slow movement by careful and prolonged observation. Slow movement of the accumulation of translucent oval nits and feces as red dish-brown granular material on the base of the lashes may also help diagnose sis with
the aid of slit lamp or magnifying lens/loups. Examination under a low-power microscope can confirm the characteristic morphology (Fig. 2) if necessary. It may also help tracing back to the per sonal sex ual his tory and travel ing his tory as in detail as possible.

Numerous in secti cide for mula tions ap plied with cot ton sticks have been sug gested for phthiriasis palpebrum, in clud ing 1% aque ous malathion, physostigma mine and petrola tum.1,7 But some of these mo dal i ties suf fer from oc u lar or sys temic side ef fects or do not af fect the nits. Among other vari ous treat ments re com mended for phthiriasis palpebrum, me chan ical re moval with fine forceps is the most low-cost and ef fec tive one. Cryother ap hy could dam age both the lice and nits.8 But the ther apy makes dis com fort and may be dan ger ous for the un co op er a tive pa tients. The Ar gon la ser pho ther apy can in stantly de stroy the para sites and nits, though it may cause tem por ary loss of the treated eye lashes.9 All of these pro ce dures are lim ited by co op er a tion fac tors in chil dren and may re quire an es the sia or se da tion.

The treat ment of phthiriasis with 20% fluo rescein eyedrops to kill the lice in sec onds has been re ported.10 One per cent yel low ox ide of mer cury oint ment ap plied four times daily for 14 days have also shown to be safe and ef fective against lice and nits.11 Re cently oral ivermectin has been tried. Be cause it has no ovicidal ac tiv ity, 2 doses of ivermectin, given a week apart, are re quired to er ad i cate phthiriasis palpebrum.12

Ex am i na tion of the pa tient for other sites of in festa tion and a full screen for other sex u ally trans mit ted in fec tions should be un der taken, as 31.4% of the pa tients in fested with Phthirus pubis are re ported to have other sex ually trans mit ted dis ease.13 Family mem bers, cur rent sex ual part ners and close com pan ies should also be ex am ined and treated. To pre vent re infestation, steri lization of cloth ing, linens and grom ming in stru ments re quires a tem pera ture of 50°C to kill all the lice and nits in 30 min utes. Pa tients should be re-exam ined for the ab sen ce of lice in the fol low ing week.

In our case, me chan ical re moval of all the lice and eggs was per formed metic ulously with out any fur ther man age ment. The pa tient could stand well through the pro ce dure and no more lice or nit was found on the next visit. Though it is the most ef fec tive and cheap man age ment for phthiriasis palpebrum, close fol low-up for any re sid ual lice or nits is nec es sary.

In con clu sion, this case re port tries to re mind the phy si ans, to be alert to phthiriasis palpebrum even in ad eveloped coun try, in case of in tract a ble blepharitis or conjunc tivitis.

References