

## Research Note

### First report of family infestation with pubic louse (*Pthirus pubis*; Insecta: Anoplura: Pthiridae) in Iran – a case report

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**Abstract.** The sucking lice including the head, body and pubic louse infest humans and so they are of high hygienic importance. Pubic lice are transmitted during sexual contact in adults. Thus, infestation of children with pubic louse is very rare. A case of infestation with pubic louse (*Pthirus pubis*) in a family in Kashan was seen. On examination of family members, the parasites were collected and observed under the light microscope. Infestation of eyelashes with *P. pubis* lice was confirmed. Since this parasite can be observed on the skin, infestation with this louse has always been one of the concerns of human communities. Pthiriasis has frequently been reported in many parts of the world; however, there are few reports on this infestation in Iran, especially familial infestation with this louse. Hence, this article could be the first report on the familial infestation with *P. pubis* in Iran and it can be suggested that infestation with pubic lice occurs in sporadic form in all over the country.

The sucking lice (order Anoplura) are small, wingless and dorso-ventrally flattened insects. This order contains several families of which Pediculidae and Pthiridae parasitize human, so called human lice. There are two species of Pediculidae, head and body lice (*Pediculus capitis* and *Pediculus humanus*) and a species of Pthiridae, pubic louse (*Pthirus pubis*) that infect humans (Service, 1996).

Lice infestations have been prevalent among humans for many centuries and it has been revealed that lice infestations are associated with lack of hygiene and poverty in human societies.

Infestation with pubic lice is a venereal disease due to physical contact especially with infested sexual partners. These lice usually remains localized in the pubic and

inguinal region, however, they occasionally could infest hairs and rarely eyelashes (Dehghani *et al.*, 1997, 1999; Mimouni *et al.*, 2002; Ko & Elston, 2004; Diaz 2006; Alice & Chaney, 2009).

The pubic louse (*P. pubis*) measures about 2 mm in size, crab-like in shape and blood sucking, that cause papules usually in pubic and perianal areas. Although they are transmitted mainly by sexual contact, they can occasionally be contracted through infected beds and toilets (Bondeson, 1998; Pierzchalski *et al.*, 2002; Flinders & DeSchweinitz, 2004; Orion *et al.*, 2004; Dehghani, 2011).

Information regarding infestation with pubic louse in any region and country is essential. Infestation in age group 20–40 years old, due to active sexual contact is more

prevalent and the prevalence rate of 70–90% have been seen in this group (Lichtenstein, 2003; Bignell, 2005). Hence, this first case of pubic louse infestation in a family in Iran is considered of public health importance.

Pubic louse are transmitted during sexual contact in adults. Thus, infestation of children with pubis louse is very rare. A case of infestation with pubic louse (*P. pubis*) in a family including parents and two children, boy and girl in Kashan, Isfahan province was seen. On examination of mother and children's eyelashes, as well as, father's chest and eyelash, the parasites were seen and collected. The removed parasites from the members of this family resembled a crab shape wingless insect with three pairs of legs under the light microscope. Father was a 35 years old trucker, mother was a 28 years old housekeeper and two children, a 4 years old boy and a 5.5 years old girl. The children did not attend kindergarten yet. Health recommendations to the parents were carried out following diagnosis. Due to infestation of eyelashes with the louse, tetracycline 1% not as an antibiotic but in order to seal lice spiracles was applied. Lindane shampoo 1% and permethrin pomade 1% were applied twice a week for treatment of the other regions like pubic area and chest hairs. Successful treatment of all the members of the family was achieved following a week.

Pubic louse is one of the common parasites on humans which has been described in very ancient literatures even, Aristotle has reported two cases of phthiriasis (Dehghani *et al.*, 1999). Since this is an ectoparasite, human infestation with it has always been one of concern. Phthiriasis has frequently been reported in many parts of the world; however, there are few reports of this infestation in Iran. It can be suggested that the limited information regarding pubic louse infestation could be due to ethical restrictions in Iran.

In a study conducted in Nepal, children infestation with *P. pubis* and head lice was 7 and 9% respectively (Poudel & Barker, 2004). Pubic infestation has been reported in venereal diseases clinics (2%) and

among travelers between 1994–2000 (1.6%) (Mimouni *et al.*, 2002). In another study conducted in a sexual transmitted diseases clinic in England during 1991, pubic louse infestation was seen in 3.5% of man and 2% of women whereas, the infestation was only 1% in 2000 (Pierzchalski *et al.*, 2002).

Louse specimens have been frequently removed from homeless people, refugee populations, and as well as, human communities with a low level of hygienic practice. In our country many infested people with pubic louse do not seek medical help due to ethical and cultural restrictions, thus there is very little information on pubic louse infestation, whereas, many studies conducted on infestation with the head lice suggest high prevalence rate for it (Ko & Elston, 2004; Diaz, 2006). Hence, this article could be the first report on the familial infestation with *P. pubis* in Iran and it can be suggested that infestation with pubic louse occurs in the sporadic form all over the country. An interview with the father of this family indicated that, the louse have been transmitted from him to the wife and the children due to close contact between them and their mother.

Pubic louse is considered to be a sexually transmitted louse, so improvement in personal hygiene, health training to young people and families could be considered as important in any preventive programmes.

Several treatments are possible for pubic louse infestation including administration of permethrin 1%, malathion 0.5% and lindane 1% for application on the affected areas.

Use of Vaseline (petroleum gel) twice a day, over a ten days period has been effective for the treatment of eyelashes infested with the louse (Mimouni *et al.*, 2002; Meinking *et al.*, 2004; Leone, 2007).

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