Human urinogenital myiasis by *Psychoda*

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**ABSTRACT**

A rare case of urogenital myiasis is reported. Three larvae were recovered from the urine of a 32 year old male. Identification revealed that the larvae belongs to the moth fly genus *Psychoda* Latereille (Diptera: Psychodidae). This type of myiasis is very rare. The patient complained of dysuria, micturition, itching of the penis, fever and some pus cells in the urine.

**Keywords:** Urogenital myiasis, *Psychoda* sp.

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Myiasis is any kind of infestation of any living animal by the larvae of Diptera. Although several cases of intestinal myiasis have been reported to the senior author by physicians, there are no published reports except that on ophthalmo-myiasis by Al-Dabbagh and Hilmi. The present case report is concerned with a rare human urogenital myiasis, little reported in the literature. Kamimura and Arakawa reported on a similar case in Japan of a urinary myiasis in a 69 year old woman due to the moth larva *Telmatoscopus albipunctatus* Williston. Over the last 3 decades, several reports of urogenital myiasis cases have been reported due to other dipterous larvae.

The larvae was in bad condition and the other two were processed and mounted in Canada balsam. General urine, stool, blood biochemical tests, differential blood cells count and urine culture gave normal results. Upon examination, the larvae were mature and identified as *Psychoda* sp. (Diptera: Psychodidae) (Figure 1) based on the reports of other authors. The larvae were elongated, subcylindrical or little flattened with sclerotized transverse plates on the body dorsal annulates with obvious head capsule. The abdomen ends in a siphon-tube bearing apically 2 pairs of conical projections fringed with right angle fan-like groups of hairs.

**Discussion.** The patient works in a primitive district in Kirkuk where there is no running water facilities, unhygienic latrines, dark washing rooms and dirty surroundings. Under such conditions the present urogenital infestation with *Psychoda* larvae could have happened by the following means. As in cases of *Fannia* or *Musca* infestations, the female flies, attracted by odour, may deposit the eggs near the urethral orifice. In a few hours, the newly
hatched larvae ascend actively reaching the bladder through the urethra, where they develop and cause the irritation and pain. Another possibility is that the larvae reached the urogenital orifice during urination or defecation and ascending up to lodge in the urethra and later in the bladder. These temporary parasitic larvae may reach maturity and descend to find their way out for pupation. A few species of the moth flies Psychoda breed in drains and manholes of sewerage systems, in filter beds of sewerage disposal plants and other filthy places. The adults are usually abundant around these sources. Other species of Diptera, eg. Scenopinus sp., Chrysomya bezziana Villeneuve, Megaselia scalaris (Loew), scuttle fly and Piophila casei (Linnaeus) have also been reported causing urogenital myiasis in man. Other explanations of urogenital myiasis are reported by Ramalingam et al and by James and Harwood. Ramalingam et al reported on a urogenital myiasis in an unmarried 76 year old female in Peninsular Malaysia and speculated that the females of C. bezziana may have laid eggs on small lesions of the vulva and the developing larvae burrowed into the living tissue. James and Harwood provided classic explanation on urogenital myiasis speculating that infestation is probably usually accomplished during the night in warm weather when a person may be sleeping without covering; the females lay eggs around the urethral opening where larvae enter upon hatching.

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References