

CASE REPORT

HUMAN AURAL MYIASIS

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Myiasis is a pathogenic condition found in vertebrate animals and man is caused by larvae of dipterous flies. Clinically, fly larvae infestation can be classified depending on the site of invasion. In Malaysia, Oothuman and Jeffery (1984) reviewed all known cases of human myiasis and classified these as urogenital, cutaneous and intestinal myiasis. Lee (1985) also reported a case of oral myiasis. In spite of these reports, relatively little is known about other forms of myiasis. A case of myiasis involving the ear of a patient is reported for the first time in this paper.

The patient, a 10-year Indian girl was admitted twice in the General Hospital, Ipoh for the presence of maggots in the ear. The attending doctor subsequently retrieved 2 specimens from the right ear and preserved them in 70% ethanol. On receipt in the laboratory, the maggots were immediately washed in distilled water and soaked in 10% KOH solution overnight, after which the last segments were cut transversely. The maggots were then washed with distilled water and neutralized in 10% acetic acid for 30 minutes. Dehydration of the specimen was conducted in ascending series of ethanol and the maggots were mounted on to glass-slides with Canada balsam. After drying in oven at 30°C overnight, the specimens were examined. Microscopic examination of the posterior spiracles revealed the presence of 3 short and stout spiracular slits enclosed in an incomplete peritreme characteristic of the blue-bottle fly *Chrysomya* species. Subsequent detailed examination of the cephalopharyngeal sclerite and anterior spiracles (total number = 11) confirmed that these maggots were those of *Chrysomya megacephala* (Fabricius) (Family: Calliphoridae) or the blow-fly.

In contrast to transient myiasis, this is the true first case of human aural myiasis reported in

Malaysia, since the specimen recovered from the ear consists of the mature (third instar) larvae of the fly which could only have developed fully in the ear. Species of the genus *Chrysomya* have acquired notoriety as myiasis-producers. In general, members of these flies can be classified as facultative and obligatory myiasis producers. The only obligatory myiasis-producing *Chrysomya* species in Malaysia is *Ch. bezziana*. Several cases of human myiasis caused by this fly have been documented (Ramalingam *et al*, 1980; Edariah *et al*, 1984; Lee, 1985). Other members of *Chrysomya* species are only facultative myiasis-producers which opportunistically infest the wounds or body cavities of the host. One such fly is *Chrysomya megacephala* or the common blue bottle fly which is synanthropic and mainly exophilic. It can be found commonly in Malaysia and other tropical countries and in a survey of 6 markets in Kuala Lumpur, adults of this fly accounted for 40% of the total fly catches (Lee, unpublished data). It is a known carrier of pathogenic bacteria and human intestinal parasites. Lee has studied in detail the life history of this fly and found that the whole life cycle (egg to adult) was completed in 7 days when reared on decaying fish under laboratory conditions (unpublished data).

The presence of the maggots in the ear is indicative of the close association of the patient with the fly. It is conceivable that the adult flies could have oviposited on the external ear and the hatched larvae subsequently migrated into the ear canal. Poor personal and environmental hygiene may also encourage the breeding of the fly. However, such cases of myiasis should be treated immediately (eg removal of larvae surgically) before permanent damage results.

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