

# Cutaneous myiasis presenting as chronic furunculosis - case report

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## Summary

Myiasis is the infection of tissue or organ of living humans or animals by the maggot or larval stages of flies. In Africa, the most common fly responsible for cutaneous myiasis is the tumbu fly, *Cordylobia anthropophaga*<sup>2</sup>.

We present two cases of cutaneous myiasis seen on the upper abdominal wall and anterior chest wall. Both were initially diagnosed as furuncle (common boil), but from high index of suspicion of myiasis, followed by application of petroleum jelly and palm oil to occlude the spiracle and the expulsion of larva stage of *Cordylobia anthropophaga* the diagnoses in both cases were confirmed.

**Key -words:** *Cordylobia anthropophaga*, Cutaneous myiasis

## Résumé

La myiase est une maladie parasitaire due à l'infestation par des larves d'insectes (diverse espèces de mouches) infection du tissu ou organe du l'être humain ou bien un animal. En Afrique, la mouche la plus ordinaire responsable pour la myiase cutanée est la mouche tumbu cordylobie anthropophaga<sup>2</sup>.

Nous présentons deux cas des myiases cutanées vues dans la paroi abdominale supérieure et la paroi de la poitrine antérieure. D'abord, on avait diagnostiqué les deux comme le furoncle (furoncle ordinaire) mais à partir d'un index élevé du soupçon de la myiase, suivi par l'application d'une vaseline et l'huile de palme afin de boucher le stimale et l'expulsion d'état de la larve de cordylobie anthropophagie les diagnostics dans les deux cas ont été confirmés.

## Introduction

Myiasis is the infection of tissue or organ of living humans or animals by the maggot or larval stages of flies. Numerous species of flies can cause various types of myiasis in man<sup>1,2</sup>, but in most societies, this condition is uncommon; however, in some of the more primitive societies myiasis occurs frequently<sup>3</sup>. Myiasis have been reported from various regions of the world and can therefore be said to be of worldwide distribution,<sup>1-6</sup> although there may be differences in the species of flies responsible likewise the clinical presentation may also vary from one place to the other as contained in the reports.

In Africa, the most common fly responsible for cutaneous myiasis is the tumbu fly, *Cordylobia anthropophaga*<sup>6-8</sup>. The adult fly is not carnivorous but feeds on filths, especially human and animal faeces<sup>7</sup>. The eggs that are deposited on, dry sands, soils or clothing contaminated by human or animal faeces or urine, hatch within 2 days. The emerging larva can burrow with the mouthhooks into an intact skin where it matures between 10-12days<sup>7</sup>. After maturation, the larva wriggles itself out for pupation in house crevices and then

matures to adult fly<sup>7</sup>.

The cutaneous infection usually mimics the bacterial furuncle. At times it may be the unresponsive nature of the lesion to antibiotic therapy or the fact that the 'boil' has refused to mature enough for incision and drainage that raises the suspicion of myiasis as a possible diagnosis.

We present here two cases of Furuncular myiasis

## Case 1

A 51-year-old woman presented with three weeks history of boil on the upper abdominal wall near the epigastric region. She initially presented to a general practitioner who on assumption that she had an infection made the diagnosis of furunculosis and placed her on oral Ampiclox<sup>®</sup> 500mg four times daily for five days while waiting for the "boil to ripe". After the completion of the antibiotic regime the boil although not increasing in size still remains hard, the physician and the patient presumed it may be absorbed with time and resolve spontaneously and therefore may not require incision and drainage. The patient waited for another week and when there was still no evidence of resolution, she presented at the University College Hospital, Ibadan. Her history revealed a visit to a rural village for evangelism during which time she had to spread her cloth on an open ground. Part of her experience was that she felt the boil to be pulsating and biting. She sometimes experienced a kind of movement within the boil. From a high index of suspicion and a closer look at the swelling, a pinhead black dot was observed on the topmost part of the furuncle. She, on doctor's advice applied Vaseline (Petroleum jelly) on the 'boil' and within 30minutes, the movement within the boil became intensified so also was the discomfort. A diagnosis of myiasis was confirmed and with a gentle squeeze, a maggot came out with a popping sound. The wound healed completely in five days and no further treatment was required.

## Case 2

This was a case of a five-year-old boy with ten days history of "boil" on the anterior chest wall near the left breast. The "boil" measured about 2cm in diameter with minimal hyperaemia. It was slightly warm to touch, firm, slightly indurated and mild to moderately tender. Because of the ten days history, which the parents considered long, and the fact that the boil was not showing any sign of ripening, the parents decided to apply palm oil to "hasten the ripening". Two days later a whitish fleshy "discharge" was noticed to be plugging the opening of the 'boil'. A gentle pressure to squeeze out the pus was made and a maggot came out instead. No bleeding occurred; the base of the wound was clean and was cleansed with an antiseptic lotion, no further treatment was given but the patient was to return five days later for review. The wound healed leaving only a tiny scar. The parents later discussed that their dog also had nodular lesions

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from which maggots were expressed.

### Discussion

The life cycle of *Cordylobia anthropophaga* has been described in standard textbooks. Several case reports spanning more than two decades have been made in Nigeria (6, 8-10), yet the diagnosis of cutaneous myiasis is still missed by most physician. These cases emphasise the fact that myiasis is a differential of furuncular swellings especially when such mass is not showing evidence of ripening. The infestation causes mild to moderate discomfort. The healing is uneventful after the removal of the maggot and the removal in itself do not require much expertise than a gentle squeeze around the furuncular swelling. However, as observed from the two cases above, application of oil (even local palmoil) or petroleum jelly (Vaseline®) appears to aid diagnosis and ease the removal of the maggot. The oil or jelly occludes the air supply through the spiracle to suffocate the larva and so the larva wriggles towards the outside to get more air<sup>7</sup>. In the process, the housing becomes loose around it or a part of the larva may actually protrude beyond the edge of the swelling, which was the situation in the second case; this enhances diagnosis and early removal. The uneventful healing that accompanies the larval removal is also characteristic of furuncular myiasis because of low degree of inflammation and tissue destruction observed.

The mode of acquisition of myiasis varies as established by the cases above. The first case was more likely through a cloth that was spread on contaminated sand, while the boy could have gotten it through close contacts with the family dog that has many myiasis. However, acquisition is also possible from playing in urine or faecal contaminated sand that contained eggs of the flies. The cases also revealed that any age group can be affected.

### Conclusion

Myiasis should be considered as differential diagnosis of furuncle in a susceptible environment.

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