

# Maggots: World's smallest surgeons.

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## Abstract

Here we report 3 cases of ulcers with maggots. All wounds are clean after removal of the maggots. Neglected ulcers and poor hygiene are implicated as important causes of infestation. We used turpentine for all cases for removal of maggots with good result. Maggots can be used for the treatment of non-healing ulcer and MRSA infection. Collagenase is responsible for debridement of the wound in presence of maggots.

## MAGGOTS: WORLD'S SMALLEST SURGEONS.

We had 3 patients of maggots in the ulcer in the last one month. All patients had neglected ulcers since long and poor hygiene is one of the causes implicated. History of trauma was present in all the cases. Among 3 cases, one patient was having foot drop, the other two had normal vascular and neurological examinations. Systemic examination was normal in all cases. Blood reports including sugar was normal in all cases. Maggots' debridement therapy is used for treatment of non-healing ulcer as well as ulcer with lots of slough and it may help even in MRSA bacterial infection which is resistant to so many antibiotics. On examination, after removal of maggots from the wound, all ulcers were clean. We used to apply turpentine over the wound to remove the maggots.

## DISCUSSION

The larval stage of any fly is known as maggots. Invasion of live human or animal tissue by maggots is termed as myiasis. The term myiasis is derived from the Greek word "myia" meaning fly. Maggots invade living or dead tissue or body cavities. Most cases are secondary or accidental. Myiasis is common in mentally retarded patients<sup>1</sup>. The most commonly involved species of flies are *Dermatobia hominis* and *Cordylobia anthropophaga*. Females lay their eggs on the underside of mosquitos or ticks and they are mechanically transmitted via phoresis. When a carrier insect bites the human or bovine host, after few days' warmth, the temperature of the host stimulates the larvae to hatch. Larval hooklets are helpful in bringing the larvae to the surface the

tissue<sup>2</sup>. The larva of *cordylobia* will directly penetrate the skin on contact. Larvae penetrate the skin and enter the subcutaneous tissue where they grow<sup>3</sup>. Approximately 5-10 weeks are required for the larvae to become mature. If the cycle is unperturbed, larvae emerge and drop to the ground and become pupae and flies within 2-3 weeks. Adult flies survive approximately for more than 7 days<sup>4</sup>. The most common presentation is ulcer or abscess-like lesion. A patient complains of itching or sensation of something moving in the lesion. Tissue destruction is caused mechanically as well as by collagenase. Survival of the larvae depends on the availability of oxygen. Various modalities of treatments are used for maggots like petroleum jelly, bacon therapy and direct mechanical removal. We used to apply turpentine oil over the wound. By causing irritation, it produces suffocation and the maggots come onto the surface and can be removed with forceps. Till now we have treated many cases of maggots and we found neglected wounds to be the most common predisposing condition for the maggots. In our experience, most wounds with maggots are clean, probably because of the enzyme collagenase which helps in chemical debridement of the wound.

## References

1. Lokman U, Fikret C, Levent BB, Turan A, Kursat A. Radical mastoidectomy cavity myiasis caused by *Wohlfahrtia magnifica*. *J Laryngol Otol* 2004; 118: 54-6.
2. Jelinek T, Nothdurft HD, Rieder N, Löscher T. Cutaneous myiasis: review of 13 cases in travelers returning from tropical countries. *Int J Dermatol* 1995; 34: 624-626.
3. Arosemena R, et al. Cutaneous myiasis. *J Am Acad Dermatol* 1993; 28: 254.
4. Baird JK, Baird CR, Sabrosky CW. North American cuterebrid myiasis. *J Am Acad Dermatol* 1989; 21: 673-772.

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