

# Mistreatment with maggot therapy in Diabetic foot ulcer causing an amputation

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## Manuscript title:

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## Short title:

**Maggot therapy, Diabetic Foot Ulcer**

## Abstract

## Key Clinical Message

Maggot therapy is one of the treatments that is used in Diabetic Foot Ulcer management. But if we don't pay attention to the indications and contraindications of it, there might be a failure in the treatment.

**Key words:** Diabetic Foot Ulcer, Magot therapy, mistreatment, Diabetes Mellitus

## Case report

A 52-year-old man with the history of uncontrolled Type 2 diabetic mellitus from 14 years ago was admitted to the hospital with fever and Diabetic foot ulcer (DFU) on three sites of both of his feet in June 2022. He said that the wounds were formed about two weeks ago and he took care of them by homemade herbal therapies, but the wounds got worse.

When his fasting blood sugar was checked in hospital, it was at 192 mg/dl so a consultant by an endocrinologist was asked. On the day of admission his C-reactive protein was at 182 mg/L. His WBC was at 17200 units/mm<sup>3</sup> with 85% Neutrophil. Ceftriaxone injection (1g, TDS) and Clindamycin injection (300Mg, TDS) were started for him at the time. Then, Orthopedists cleaned the wound and debrided the necrosed tissues. The collar doppler sonography of the arteries and veins of his lower limbs reported no signs of acute DVT, and the augmentation was normal. On the second and third day of admission, and again on the sixth day of admission, he had fevers that were controlled by Apotel injections (1 g). On the third day of admission Vancomycin injection (750 mg, BD) and Piperacillin (4.5 g, TDS) were started. On the fourth day a surgery was performed to debride the necrotic parts of the ulcer. On the seventh day of admission, the patient planned to leave the hospital and stopped following our treatments.

He didn't continue the treatments in any other health clinics, instead he attended a fungal specialist. The specialist recommended maggot therapy. But the ulcer worsened and the larva ate all the granulation tissue and healthy normal tissue until the bones were seen (figure1-3). At this time, he admitted to the hospital again and an amputation was performed on him.



**Figure 1: DFU after maggot therapy**



Figure 2: DFU after maggot therapy



Figure 3: DFU after maggot therapy

### Discussion

Management of DFU is so challenging that a monotherapy strategy for treatment may not be very useful. Some treatments are more common including: necrotic tissue debridement, infection control of the area with systemic antibiotics, reducing the pressure on the area, and revascularization (1).

Maggot therapy is believed to be an effective treatment as a debridement therapy in chronic wounds such as DFU. So, in Germany maggot therapy is offered to patients as a useful treatment (2, 3). But in this case not only maggot therapy was not useful but also worsened the ulcer and obligated a debridement therapy.

Contraindications of maggot therapy are listed below:

1. Very dry wound,
2. Open wounds into the abdominal cavity,



3. Pyoderma gangrenosum in patients with immunosuppressive therapy and septic arthritis
4. Wounds heavily contaminated with pseudomonas aeruginosa (4).

### **Conflict of interest**

None.

### **Funding information**

None.

### **Consent**

Written informed consent was obtained from the patient to publish the current case report.

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