

## Research Article



## A Case Report on Myiasis of Diabetic Ulceration by *Chrysomya bezziana* in A South Indian Tertiary Care Hospital

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### ABSTRACT

Myiasis refers to the infestations of tissues and soft membranes by larval eggs which multiply tremendously, thus leading to fatality by delayed wound healing. Its occurrence in long chronic ischemic foot and leg ulcers has been reported earlier with rare vulvar Myiasis in endemic regions. Turpentine oil is usually made use of for the quick expulsion of Maggots out of the ulcer. Thorough wound debridement after proper cleansing of the wound could help in promoting its healing. Here we report a case on chronic leg ulceration in Diabetic women with Myiasis infected by 'Chrysomya Bezziana' identified through the morphological appearance of larvae.

**Keywords:** Maggots, Larvae, Myiasis, Ulceration, Wound.

### INTRODUCTION

Myiasis could be classified under three types depending upon the host relationships<sup>1-3</sup>. They are; Facultative Myiasis, Accidental Myiasis, Obligatory Myiasis. Based on their site of infestation, they are further classified into two types; Gastrointestinal Myiasis and cutaneous Myiasis<sup>4-6</sup>. Here we report a case on obligatory Myiasis of the leg due to *Chrysomya Bezziana* infecting the cutaneous layer. Myiasis commonly occurs in immune-compromised patients, endemic habitants, bed ridden with extremely poor hygiene<sup>7</sup>.



**Figure 1:** Maggots are observed exploding after applying of turpentine oil over the ulceration due to its asphyxiation property

### CASE REPORT

A 45 year old female patient who is a known case of Diabetic ulceration on her left leg for the past 6 months visited the Government hospital Thiruvallur, for dressing

the wound which remained tied for the past more than a month. She felt pain at the site than normal which made her to visit the nearby hospital after long time. On examination the ulceration was swollen, red, erythematous with interior movements of larvae observed. Immediately after physical examination Turpentine oil was used for cleaning of the wound which made numerous amount of maggots to come out due to asphyxiation and the larvae were removed safely without rupture using non-toothed forceps (Figure 1). She was prescribed with broad spectrum antibiotics like Doxycycline 100mg, Augmentin 500mg PO for 7 days to treat her ulcer condition.

### DISCUSSION

Myiasis is most common in those with poor hygiene which is the factor for our patient too. This Maggots takes advantage on inhabitations of the cutaneous layers of unhygienic and exposed body parts of humans and animals. Gastrointestinal Myiasis is not much common when compared to cutaneous<sup>8,9</sup>. Our patient was not reported to be immune-compromised and was screened for HIV, Syphilis with negative results. She was conscious, active and mobile. Literatures already suggest the excellent asphyxiation property of Turpentine oil which was greatly applicable in our patient. In case of dead larvae within the membranes, surgical removal would remain the only source in order to avoid secondary infections. Lan K.H *et al* has reported a case series of foot and leg Myiasis caused by *Chrysomya Bezziana*, Dietrich A *et al* has reported a case series on Myiasis due to *Cordylobia anthropophago* larvae, Ibrahim W *et al* has reported a case of larval infestation of chronic ischemic leg ulcer. Maggot Debridement Therapy (MDT)<sup>10,11</sup> was another option suggested for our patient, which acts against disinfection, debridement, bacterial bio film eradication with complete wound healing. The patient



was advised for proper hygiene and time to time reviewing for dressing and cleansing up of wound site. Management of her Diabetic condition with oral hypoglycemic and monthly reviewing was also insisted upon.

### CONCLUSION

Role of clinical pharmacist in making the patient understand the importance of hygiene and important measures to be taken is elucidated here. Management of Diabetes for its risk of ulcerations is also to be done with drugs and proper care, thus reducing the rate of morbidity. Extra effort is to be taken in rural sectors in making the patients understand the consequences of open wound ulcerations with maggots in it.

### Ethical Approval:

Permission from the hospital was obtained in order to publish the case report. Informed consent was duly signed by the patient and the care taker for its publication.

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