

# Maggots with Methicillin Resistant Staph Aureus

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**Abstract** Myiasis is an infestation of the tissues and organs of living vertebrates by fly larva that feed on the host's necrotic or living tissue, it is a very well recognized complication of neglected wounds. [1] People with neglected open wounds, poor hygiene, rural territories and close proximity with cattle are at risk of Myiasis. Here I report a case of 18 years young male who had history of injury one month back, contused lacerated wound was sutured at primary health centre, was given proper antibiotics coverage also. After stitches removal and partial healing, Patient neglected wound care and presented to me with maggots during first consultation. Diagnosed with MRSA infection, cured with surgery, culture sensitive antibiotics and regular wound care till complete healing status. He was saved from dreaded complications such as osteomyelitis, gangrene and systemic sepsis through prompt diagnosis and treatment.

**Keywords:** maggots, MRSA (Methicillin Resistant Staph Aureus)

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## 1. Introduction

Myiasis is rare nowadays in the advent of patient awareness, education status, and better wound care with advance health care facilities. Still neglected wound care pose a big threat of maggots infestation and secondary consequences over a period of time. I am presenting a case of Myiasis in young chap with secondary MRSA infection, managed with prompt surgical debridement and excellent wound care post operatively which helped him to return to work within short period of time without further complications.

## 2. Case Report

[2] An 18-year-old male patient from remote village presented to the surgical outpatient department for delayed wound healing of his left ankle region. He had history of fall from vehicle before one month, suturing was carried out at Primary Health Centre with proper antibiotics coverage for a period of 2 weeks. After the stitches removal, he neglected wound care due to false belief of complete healing. He is a non-smoker farmer and involved in farming work requiring close proximity of cattle and house flies. He approached regional doctor for dressing at irregular intervals and analgesic for pain relief. It was severe pain with inability to sleep for last 3 days which made him compel to consult a specialist. I examined him for the first time on 10<sup>th</sup> February, 2022. His systemic examination with vital parameters was normal. [3] The wound involving left lateral malleolus area was showing

live maggots popping out, edges of wound were hyperaemic and swollen with ulcer bed showing unhealthy granulation tissue without any pus discharge. (Figure 1) Left foot peripheral pulsations of Dorsalis pedis and Posterior tibial arteries were normal. [4] I immediately removed visible maggots and advised for necessary work up with laboratory tests and an x-ray of the left foot with ankle to rule out osteomyelitis. His haemoglobin was 13.9 g/dL, Peripheral smear showing 81% Neutrophils and 14% Lymphocytes, Random blood sugar was 97 mg/dL. X-ray of left foot with ankle showed no bony lesions. His relatives were counselled for debridement of wound with necessary care to save the limb from further complications.

Patient was admitted very next day for surgery and operated under General Anaesthesia, during which [5] debridement of unhealthy granulation tissue, removal of 19 maggots (1-2 cm size) was done (Figure 2). In addition, intra operative topical administration of Hydrogen peroxide and 0.05% Chlorhexidine acetate was carried out; Turpentine oil also used as proven larvicidal drug immobilizing larvae and assisting Maggots removal. Sterile saline dressing applied. A culture swab was also taken for microbiology report of sensitivity to reveal underlying bacterial invasion which showed MRSA (Methicillin Resistant Staph Aureus) infection, sensitive to very few antibiotics only.

Maggots were not sent for lab studies due to financial constraints on the patient side. Intravenous antibiotic coverage with Amoxicillin combined Clavulanic acid was given during hospital stay of one day and he was discharged with oral antibiotics of same group for further 2 days. Proper counselling was carried out regarding hygiene care strictly to be followed. After culture report he was given oral Linezolid (600 mg) for 1 week, Capsule

Doxycycline (100 mg) for 2 weeks period. He was on regular outdoor patient department follow up for wound care, sterile dressing with normal saline and Mupurocin ointment (as per the culture sensitivity report) for a period

of 5 weeks. No Maggots or larvae were observed during any follow up dressings. Wound healed completely without reoccurrence or complications at 12 weeks period (Figure 3).



Figure 1.



Figure 2.



Figure 3.

### 3. Discussion

Myiasis can be classified according to the areas involved as cutaneous and subcutaneous (wound) and cavitary (nasopharyngeal, tracheostomy, intestinal, umbilical cord, urogenital, cerebral etc.) Of them cutaneous form is the most frequently seen in the clinical form of the disease. Myiasis appears more often in subtropical countries, rural regions where people are more likely to have poor hygiene and close contact with domestic animals. Diabetes, neglected wounds with foul smelling discharge attract maggots. Alcoholism, drug addiction and warm climates are additional risk factors. [6] Delayed diagnosis and continuation of ineffective and unnecessary antibiotic treatment (as in this case ample number of antibiotics were resistant to MRSA infection) can lead to further risk of tissue destruction, which could result in osteomyelitis, amputation of affected area or even systemic sepsis condition.

### 4. Conclusion

[7] People with neglected open wounds and poor hygiene, especially in warmer climates, are at risk of Myiasis. Clinicians should be suspicious of non-healing wound lesions despite the appropriate antibiotic treatment. Early diagnosis and prompt treatment with thorough

surgical debridement of unhealthy or necrotic tissues, larvae removal and microbiological culture of the wound (even in absence of visible pus discharge) is crucial to stop tissue destruction and save the affected area with improvement in quality of life.

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