

Biodebridement as a safe way of cleaning untidy and infected wound. A case report**D Asfaw Ayele**

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This is a case report of a thirty-seven years old male daily laborer who sustained an injury by a fallen wall fragment to the dorsum of his right foot where the dorsum foot is degloved and infected where complete debridement was performed by maggots.

Introduction

It had been long time the larva were used to clean up infected and dirty wounds. Battle field doctors of ancient times such as doctors of the napoleon army used the larva to clean wounds and noted that soldiers whose became infested with maggots had better outcomes than those not infested. Now days the researchers found out the veracity of their role in wound healing as well as the magic behind this role. Our case report demonstrated the role of the larvae in cleaning up the wound in a manner that if it is not better than, is at least equivalent to surgical debridement.

Case Report

This is a case report of a thirty seven years old male patient a daily laborer and homeless who was brought to our Hospital by a police man after he sustained an injury to his right foot by a fallen wall. On physical examination on arrival vital sign were stable the only pertinent finding was a complete degloving injury of the dorsum skin of the right foot, with a greasy colored dead and devitalized tissue. Patient was resuscitated and kept in emergency room for therapy until bed is available. While staying in the Hospital we found that maggots are formed over the wound and we let them stay for three to four days finally the wound was found to be clean and well granulated wound .The larvae has left the wound after they remove the dead and devitalized tissue. Below is the picture before biodebridement.

Discussion.

Maggots are creepy, crawly, & slimy but that slime is a remarkable healing balm used by battle field surgeons for centuries to close wounds. They are efficient consumers of dead tissue. They munch on rotting flesh leaving healthy tissue practically unscathed. In order to protect themselves from the immune system they suppress the immune system by suppressing the complement protein level. by this mechanism they can survive until removal of all devitalized tissue. They derive nutrient through process known as extracorporeal digestion by secreting a broad spectrum proteolytic enzymes that liquefy necrotic tissue leaving a free wound free of necrotic tissue. They also facilitate wound healing by disinfecting the wound by secreting anti microbial molecules. , by ingesting & killing microbes with in their gut, by dissolving biofilms. They also stimulate the growth of a healthy tissue by increasing oxygen on the wound. the final goal of maggot debridement is to achieve the most rapid ,safe, and painless healing of the wound. The only drawback but not considered as draw back is public misconception of seeing maggots over their wound.



Figure 1. Miggot Performing Debridment



Figure 2. This is after the maggots perform debridement

Conclusion

1. Maggots debride and clean a wound by dissolving dead and infected tissue with their proteolytic enzymes.
2. They disinfect the wound.
3. They stimulate the growth of a healthy tissue.
4. There is no side effect of using maggot therapy.
5. Safe and cost effective treatment.
6. Health education should be given to patients and society members to avoid the common misconceptions about maggots on the wound.

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