

Maggot therapy for the treatment of chronic wounds

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Management of chronic wounds remains challenging worldwide in spite of technological advances. For wound healing, many methods of debridement are available and practised according to the requirement. Debridement is a procedure for treating wounds on the skin. It involves cleaning the wound and removing the slough. Maggot therapy is one of the ancient and popular debridement therapies, which is redefining its place currently. In maggot debridement therapy, a larva of a green bottle fly, *Lucilia sericata* is applied on the patient's wound and left open for some time. Maggot therapy provides three core beneficial effects on wounds, such as debridement, disinfection and enhancement of wound healing. Maggots consume the necrotic tissue far precisely than normal surgical operations. The wound healing by maggots occurs as a result of the secretion of proteolytic enzymes. Due to the presence of proteolytic enzymes, the pH level of the wound increases and this enhances the healing process by preventing other bacterial growth. It's and its therapy, ement are practised ite of is used to heal chronic ulcers especially in diabetic conditions (gangrene). Effective treatment of complex diabetic wounds could be achieved through maggot debridement therapy. The advantages of maggot's therapy include rapid wound healing, reduction of further infection, pain control and lesser side effects. It is practised mostly when other conventional therapies fail or when there is a consideration for non-surgical debridement of the wound. Its increased use is being witnessed in the treatment of drug-resistant wounds. High levels of gamma-interferons and interleukins have been shown in maggot excretions, which are believed to stimulate tissue regeneration and this has increased the potential of maggot debridement therapy for future research. Intensive research into the cellular mechanisms of action and genetic engineering techniques could bring novel and innovative therapies in the future that might have the potential to revolutionise wound healing.

Keywords: Maggot therapy, Wound debridement, Biotherapy, Proteolytic enzymes, Lucilia sericata

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