

Larval therapy in the veterinary field: first application and perspectives of use in Brazil

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Larval therapy (LT), also known as biological debridement, consists of using larvae of necrophagous flies, reared and disinfected in the laboratory, to promote the healing of acute, chronic and/or infected wounds. Larvae promote healing by removing necrotic tissue during its feeding process; they eliminate microorganisms and inhibit their growth by means of their enzymes and secretions; they also stimulate the formation of granulation tissue in vertebrates, by mechanisms not yet fully elucidated. These properties, coupled with the fact that there are few contraindications associated with the use of larvae, qualify LT as a viable and safe alternative for the treatment of difficult-to-heal lesions. For these reasons, it has been applied in human medicine for centuries. However, this therapy is not well known in the veterinary field. This study presents the evolution of two clinical cases (traumatic and tumoral lesions in a dog and a horse, respectively) treated with LT, as well as the perspectives for inserting this therapy in clinical practice of small and large animals in our country. The lesions were previously measured and evaluated for color, presence of exudate and necrotic tissue. Larvae (from *Chrysomya megacephala*, Diptera, Calliphoridae) for the application (10 larvae/cm² of wound area), disinfected in 1% NaClO for 5 minutes, were obtained from colonies pre-established in the laboratory. 48 hours after being applied, the larvae were removed by flushing with 0.9% sterile saline solution and the wounds were evaluated again. Besides being easy to apply, LT was effective in the removal of devitalized and necrotic tissue and exudates; it also improved the appearance of lesions of both animals, where conventional treatments were unsuccessful or could not be prescribed (in the latter case, due to mare's pregnancy). In conclusion, LT is a promising technique for reducing the time of hospitalization of animals and can also prevent amputations, sepsis or euthanasia resulting from intractable wounds.