

EQUINE ACUTE WOUND HEALING WITH HONEY

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Introduction

A 21 year old KWPN mare presented a large wound on the tarsus of the left rear leg. The wound was caused by the housing facilities. Due to neglect, the wound could only heal by secondary intention, which was initially done by daily cleansing with water and ethanol-glycerin (Citonol). This however had little to no effect and after 14 days the wound became necrotic and malodorous.

Objective

The owner had abandoned the horse, so there was no money for surgical debridement or veterinary care. The objective was to remove the necrotic tissue by autolysis and reduce infection without the use of antibiotics [1].

Materials and Methods

Medical grade honey (L-Mesitran, Triticum, NL) was applied daily after cleansing with water. The honey was applied on regular gauze first and then on the wound, covering the peri wound area too. Close to wound healing honey hydrogel adhesive dressings (L-Mesitran Active) were used. Dressing changes were then every other day.

Results

After 14 days the necrotic tissue could be manually removed, the malodour was gone and the infection was reduced. The wound was appr. 25cm x 12cm. In 4 weeks time the wound decreased with 75% and showed good granulation and epithelisation. Because the wound improved so well, the horse became more active, which caused the delicate new tissue to open up again, thus delaying wound healing.

The treatment continued using adhesive honey hydrogel dressings (L-Mesitran Active). The hair around the wound was shaved, the peri-wound area cleaned and then the dressing was applied. This occlusive treatment was successful and after 4 months the wound completely healed. A year later at follow up the scarring was minimal.

Conclusions

The use of regular honey for wound care is not without danger, because of the presence of dormant endospores of clostridium botulinum in honey, which can cause wound botulism [2]. The use of honey based products in (veterinarian) wound care should therefore always be done with sterile honey, to prevent wounds worsening [3].

Honey is antibacterial due to its ability to lower wound pH and the production of hydrogen peroxide [4]. In this case healing *per secundam* was achieved using a cost efficient medical grade honey based product which removed the infection and stimulated angiogenesis (granulation and epithelisation) [5]. Additional antibiotics were not needed.

References

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1. The wound after 14 days of honey treatment.



2. Wound size is 25cm x 12cm on 27/11/2008.



3. Improvised fixation for the secondary dressing.



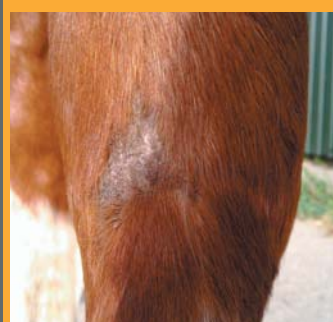
4. The wound size decreased by 75% on (29/12/2008).



5. Wound opened due to increased mobility (22/01/2009).



6. Fully healed wound after 4 months of honey (21/03/2009).



7. Little scarring at one year follow up.



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