

## THE USE OF A HYDROCOLLID DRESSING ON A CHRONIC WOUND - CASE STUDY

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### Introduction

The treatment of difficult-to-heal wounds with hydrocolloid dressings has been used with great success in human medicine. They are mainly used for exudative wounds, e.g. bedsores, burns and postoperative wounds. Until now, in veterinary medicine, dressings of this type are also used to treat similar types of wounds. However, animals are more likely to become infected at the site of damage, which significantly hinders their healing and forces veterinarians to perform the general chemotherapy with antibiotics. The wound heal through granulation for many weeks, leaving a scar and putting a heavy strain on the animal's body. Owners often complain about the length of the therapy.

### Materials and Methods

The object of this study was a rat referred by the owners to the Small Mammals Outpatient Clinic at the University of Life Sciences in Lublin with, a ruptured abscess in the thorax area. The lesion was cleaned, general antibiotic therapy and local antibiotic ointment were applied. The animal scratched the wound intensively, which significantly delayed the healing process. Due to the poor condition of the wound, it was decided to use a hydrocolloid dressing sutured in the abscess cavity.

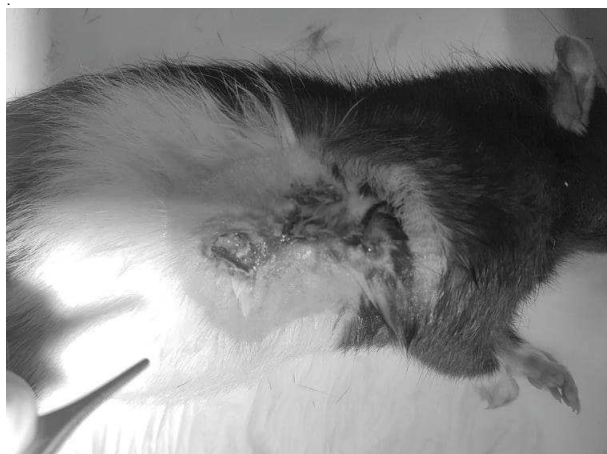


FIG. 1. First day of treatment.

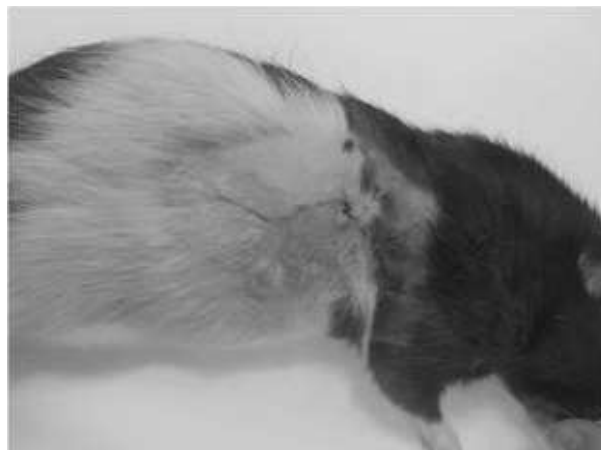


FIG. 2. The wound is healed.

### Results and Discussion

After 5 days, the dressing and the scab fell off the healing wound and after 10 days it was healing without any signs of infection.

### Conclusions

Hydrogel dressing with the addition of gentamicin works well in the case of chronic difficult to heal wounds. It reduces the possibility of infection, which is common in animal injury cases.

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### References

- [1] M. Wojcik, P. Kazimierczak et al. Superabsorbent curdlan-based foam dressings with typical hydrocolloids properties for highly exuding wound management. *Materials Science and Engineering: C* (2021), vol. 124, s. 1-16.
- [2] V. Vivcharenko, M. Wojcik, et al. Highly Porous and Superabsorbent Biomaterial Made of Marine-Derived Polysaccharides and Ascorbic Acid as an Optimal Dressing for Exuding Wound Management. *Materials* (2021) 14(5):1211.