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Guinea pig cheilitis

Cheilitis or inflammation of the lips is an unusual but treatable disease seen in pet guinea pigs. Owners may describe the problem as "scabs around the mouth." While there is only one published case report from 1977, diagnosis and treatment of cheilitis is frequently discussed on internet veterinary discussion boards.

Clinical presentation

Cheilitis presents as inflammation and hyperkeratosis of the mucocutaneous junction of the lips. The crusts tend to aggregate at the lip commissures in the early stage of the disease, then eventually spread along the lips and the philtrum. There is no sex predilection and affected animals are usually 1 to 5 years of age. In multiple guinea pig households, owners may report non-healing scabs and ulcers around the mouth of two or more guinea pigs. The lesions tend to wax and wane over several weeks but never completely resolve. Despite the presence of these lesions, affected guinea pigs continue to eat normally.

Aetiological agent

The cause of cheilitis is not known. Viruses, fungi and bacteria, such as *Staphylococcus aureus*, have all been suggested. Some clinicians have suggested that either coarse, fibrous hay or sharp pieces of pelleted feed may cause trauma to the corners of the mouth, allowing bacteria and fungi to gain entry opportunistically via abrasions (Laber-Laird, Swindle and Flecknell, 1996). Unfortunately, there is a little information on microorganisms recovered from these lesions. In the only published case report, Smith (1977) obtained a pure growth of coagulase positive *Staphylococcus aureus* from the lesions of one guinea pig. More recently, Richardson (2000) has implicated a poxvirus as the cause of the disease. Although an aetiological agent has not been identified, Richardson (2000) and other veterinarians on internet message boards emphasize that the condition is contagious.

Classification

Most cases of cheilitis present as the mild form, in which the guinea pig has multiple scabs, particularly on the corners of the lips. The guinea pig is still in good health and eating normally at this stage. A severe form has been reported, in which the scabs progress to involve the gums as well as the teeth becoming brittle. Mortality rate is high in these cases and euthanasia is recommended (Richardson, 2000).

Diagnostic investigation

Biopsy results for cheilitis lesions are often varied. Histologically, large colonies of bacteria are often seen in association with the lesions. Cytologically, infiltrations of neutrophils, lymphocytes and macrophages may be seen. The epidermis is thickened and hyperkeratotic, and segmental erosions and ulcers are observed. If the clinical signs are mild histopathology may not be required.

Approach to treatment

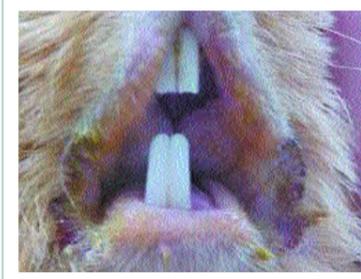
Topical therapy

The most important approach to therapy is to implement excellent oral hygiene. The use of a 10% povidone-iodine

solution works well to reduce the microbial component.

Lesions around the mouth should be gently cleansed twice daily and crusty exudate manually removed from the mucocutaneous junction. Cotton wool soaked in the povidone-iodine solution is sufficient. Cleansing should take approximately 10 minutes each treatment session to ensure adequate contact time with the antiseptic solution. The patient may require light sedation if the procedure is painful, but usually this is not necessary.

After cleansing, a topical antimicrobial ointment is applied using a cotton bud. Richardson (2000) recommends Panolog as it contains both antimicrobial and anti-inflammatory agents. Topical therapy (antiseptic cleansing and topical ointment) should be continued for seven days after visual



resolution of the lesions. If the guinea pig presents with chronic cheilitis, then treatment may be required for 3-4 weeks and lesions may recur.

Systemic antibiotics

Systemic antibiotics are not necessary.

Analgesia

Meloxicam can be used as an analgesic if the guinea pig is in pain.

Nutrition and supportive care

Ensure adequate nutrition containing sufficient vitamin C (as guinea pigs can commonly develop a deficiency in this vitamin). Offer plenty of fresh chopped vegetables daily, including broccoli leaves/florets, parsley, basil, spinach, celery and Asian greens as well as some citrus or kiwifruit. Some of these food items can be offered as treats to ensure the guinea pig is

eating. Guinea pigs are easily stressed so ensure a clean, quiet and comfortable environment.

Husbandry

All food bowls and drinkers should be disinfected - this can be achieved by washing the items in a dishwasher or soaking for 10 minutes in a dilute chlorine solution. Ensure that the utensils are thoroughly rinsed if using a bleach solution. Wired hutches should be scrubbed with a suitable disinfectant.

Prevent self-mutilation

Nails should be clipped to prevent self-mutilation and subsequent bleeding. Avoid coarse hays and other abrasive foods, which may rub against the lip lesions during prehension and predispose the lesions to secondary infection.

Clinical reassessment

Guinea pigs should return for a clinical progress examination one week after initial diagnosis and then one week after clinical resolution of the cheilitis. If the lesions are not responding to therapy, then a biopsy should be obtained for histopathology and cultures of the lesions should be taken for microbial culture and sensitivity.

Transmissibility

Guinea pig cheilitis is definitely contagious. If one guinea pig is affected, quarantining is important. Isolate the affected guinea pig and carefully observe and treat any guinea pig that develops lip lesions subsequently.

Prognosis

Guinea pig cheilitis has a low mortality rate. If the owner focuses on oral hygiene, prognosis for the affected guinea pig is excellent. Generally, after instigating the appropriate treatment plan, healing of the lesions occurs within 2-3 weeks. Warn owners that recurrence of the lesions can occur.

References

- Laber-Laird, K., Swindle, M. and Flecknell, P. (1996) *Handbook of Rodent and Rabbit Medicine* 1st edn Elsevier Science Ltd, Oxford
- Richardson, V. (2000) *Diseases of Domestic Guinea Pigs* (pp 78-79) 2nd edn Blackwell Publishing, Oxford
- Smith M. (1977) Staphylococcal cheilitis in the guinea-pig *J Small Anim Pract* 18 47-50

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