



observations

F R O M T H E F I E L D

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Successful Treatment of Pododermatitis in a Rat

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An 18-month-old female white rat was presented for bilateral plantar metatarsal ulcerative inflammation (pododermatitis) (Fig 1). The rat had previously been treated by the referring veterinarian with oral enrofloxacin and trimethoprim sulfa without resolution of signs.

After physical exam and a discussion of husbandry issues, both husbandry and therapeutic changes were instituted. Cage bedding was changed from pine shavings to a recycled paper substrate, and a pet store commercial diet was replaced with a formulated diet for rats supplemented with small volumes of fresh mixed leafy greens and dried fruit.

Due to the common association of *Staphylococcus aureus* with ulcerative dermatitis, the rat was placed on oral amoxicillin-clavulanic acid (50 mg/kg q12h) and topical 2% mupirocin. At the 2-week recheck, the degree of ulceration was diminished, but significant inflammation remained.

Oral amoxicillin-clavulanic acid was continued, and topical therapy was changed to a medicated eardrop formula (Zymox Otic[®]) every 12 hours. Zymox Otic[®] combines 3 enzymes (lactoperoxidase, lysozyme and lactoferrin) shown to have effective in vitro antibacte-





Products at a Glance

- Recycled paper bedding - Care Fresh®, International Absorbents Inc., www.carefresh.ca/carehm4.html
- Formulated diet for rats - Regal Rat®, Oxbow Hay Co., www.oxbowhay.com
- Amoxicillin-clavulanic acid - Clavamox®, Pfizer, www.pfizerah.com
- 2% mupirocin - Bactoderm®, Pfizer, www.pfizerah.com
- Zymox Otic®, Pet King Brands, www.petkingbrands.com/zymox.html



rial properties.¹ Three weeks after initiating treatment with topical Zymox Otic®, the plantar lesions were significantly reduced; however, the rat had developed upper respiratory signs. Antibiotic therapy was changed to a combination of

enrofloxacin (10 mg/kg q12h) and doxycycline (10 mg/kg q12h). Two weeks after the above therapeutic changes were made, the pododermatitis had healed further, and the respiratory signs had resolved. Oral antibiotic therapy was continued for

an additional week, and treatment with topical Zymox Otic® was reduced to once daily application for 3 more weeks, at which time the pododermatitis was completely resolved (Fig 2).

A combination of husbandry and dietary changes along with long-term oral antibiotic and topical therapy were instituted in this case; therefore, it is difficult to assess which factors had the most influence on resolution of the pododermatitis. The progression of healing was most dramatic after initiation of treatment with topical Zymox Otic®; therefore, the author believes this product had significant influence on lesion resolution.

Further Reading

1. Rajvinder A: In vitro anti-microbial activity assessment of Zymox Otic solution against a broad range of microbial organisms. *J Appl Res Vet Med* 1(3): 240-251, 200.

