Enrofloxacin in Feline Conjunctivitis

Conjunctivitis is common in cats. It can be caused by a wide range of pathogens, including, but not limited to, *Chlamyophila felis*, feline herpesvirus type 1, *Mycoplasma* species, or organisms causing secondary bacterial infections. One of the most common drugs used to treat *C. felis* conjunctivitis is doxycycline. This drug can cause growth retardation in young cats, stain growing teeth, be hepatotoxic, cause gastrointestinal signs, and, in rare cases, cause hypersensitivity reactions in white cats exposed to sunlight. Enrofloxacin has been shown to be effective against *Chlamyophila* infections in humans and birds. Eight cats with no history of respiratory disease received 5 mg/kg subcutaneously, and concentrations of drug were measured in tears, saliva, and serum at 0, 2, 4, 6, and 12 hours after administration. Concentrations of drug were above the minimum inhibitory concentration for most feline pathogens. In a second group of cats (*n* = 14) with respiratory disease, enrofloxacin was administered at a dose of 5 mg/kg subcutaneously Q 24 H for 3 days and then Q 24 H at 15 mg per cat for 11 more days. This second study was done to determine whether drug concentrations were higher in these tissues when infection and inflammation were present. Drug concentrations were also measured in serum, tears, and saliva among infected cats and compared with concentrations in the 8 cats with no signs of respiratory infection; concentrations were similar. These pilot studies demonstrated that the drug was found in therapeutic concentrations for treatment of *C. felis*. In a final study, the authors randomly assigned 25 cats with conjunctivitis to enrofloxacin or doxycycline. Fifteen of the 25 cats (9 in the enrofloxacin group and 7 in the doxycycline group) were positive for *C. felis* by immunofluorescent antibody (IFA) testing. Both treatment groups showed similar responses to treatment and improvement in clinical signs. Although clinically improved, 3 cats in each group were still IFA positive for *C. felis*, indicating persistent infections. None of the cats in the enrofloxacin group had adverse effects. Three cats in the doxycycline group developed injection-site reactions.

**COMMENTARY:** The key finding in this study is that there is an alternative drug for the treatment of *C. felis* infections in cats. One drawback to doxycycline is the drug’s bacteriostaticity, making it a poor choice in immunocompromised cats. It is also less effective than other drugs against most secondary pathogens found in cats with feline respiratory disease. No adverse effects were noted in the cats treated with enrofloxacin. Unlike dogs, cats are not predisposed to chondrotoxic side effects, and the authors found no evidence of growth retardation in the young cats during follow-up. They also found no signs of progressive retinal degeneration in any of the cats.—Karen Moriello, DVM, Diplomate ACVD


Cyclosporine + Surgery for Canine Anal Furunculosis

German shepherd dogs are predisposed to anal furunculosis, which is characterized by inflammation, ulceration, and development of cutaneous sinus tracts within the perianal tissue. The exact cause is unknown, but an immune-mediated mechanism is thought to be involved. This retrospective study evaluated the efficacy of combining preoperative immunosuppressive therapy with surgical excision for treatment of canine anal furunculosis. Most of the subjects were German shepherds. The severity of disease was also noted; some dogs had unilateral disease and some had bilateral disease. The dogs were divided into 2 groups. Group 1 received cyclosporine alone or in combination with ketoconazole. Group 2 received azathioprine and prednisolone. Preoperative immunosuppressive therapy lasted a mean ± SD of 7.4 ± 2.4 weeks for group 1 and 5.86 ± 1.8 weeks for group 2. Both protocols reduced the progression of anal furunculosis, so it appears that immunosuppressive therapy before surgical excision may minimize recurrence in dogs. The dogs given cyclosporine had better resolution of anal furunculosis before the surgery. The dogs were followed for 9 months after the surgery.

**COMMENTARY:** Presurgical therapy made the surgical procedures easier; this is a great benefit for managing these patients. The combination of drug and surgical therapy seemed to be a good solution for reducing the lesions while avoiding some of the concerns of long-term immunosuppressive therapy.—The Editors