Otitis Media: Flushing It Out

In recent years, lavage of the tympanic bulla has become an important adjunctive to long-term antimicrobial treatment in otitis media. In this retrospective study, outcomes of 44 dogs treated with middle ear irrigation and long-term antibiotics were reviewed. Dogs ranged in age from 1.2 to 13 years of age (mean, 6.1), and the mean duration of ear disease before treatment was 25 months (range, 3 to 84). Otitis media was bilateral in 42 dogs, and 82 of 88 ears had damaged or absent tympanic membranes at the time of lavage. Mild to severe stenosis of the ear canal was present in 86 ears. As part of the procedure, cytologic specimens and/or bacterial cultures were obtained; multiple organisms were present in 28 ears, 1 organism was isolated from 50 ears, and in 12 ears culture was negative. Ten different microbes were isolated, and Pseudomonas aeruginosa, Staphylococcus intermedius, Enterococcus, and Malassezia species were most common. Of the 39 isolates of Pseudomonas, only 7 were susceptible to enrofloxacin and 22 were susceptible to ciprofloxacin. After lavage, 40 of 44 dogs were treated with systemic antibiotics; however, all dogs were prescribed an otic cleanser and a topical antimicrobial drug—topical therapy was selected empirically based on cytologic findings. The most commonly used topical agent was silver sulfadiazine ointment. Otitis media resolved in 36 of 44 dogs with lavage and medical management. The time to resolution varied from 30 to 360 days, with a mean of 117 days. Four of the 36 dogs relapsed within 3 to 15 months and required further medical therapy. Age, duration of disease, use of corticosteroids, and infection with Pseudomonas had no effect on time to resolution.

COMMENTARY: There are several important points to share with clients when recommending this procedure. First, although invasive, it is cost-effective because it allows collection of cytologic specimens and culture from the site of infection that will aid in therapy decisions. Selection of appropriate drugs is important because the mean time to resolution of clinical signs in this study was almost 4 months and can take up to 1 year. As expected, Pseudomonas species were most commonly isolated, but it is important to note that 82% of isolates were resistant to enrofloxacin; long-term treatment decisions cannot be based on empirical therapy decisions. Second, lavage provides for mechanical removal of exudate and inflammatory exudate from the tympanic bulla, even though there is a high likelihood that the tympanic membrane is already damaged. In this study, 93% of tympanic membranes were ruptured or absent, suggesting that removal of debris is not needed; however, they also found that 97% of the canals were stenotic, causing mechanical obstruction. Third, corticosteroids, so useful in decreasing ear stenosis, were not found to adversely affect resolution of otitis media. It has been the author’s experience that many clients ask whether these drugs are contraindicated. Fourth, although vestibular and auditory dysfunction is a possible complication, none of the dogs in this study had any adverse effects. Finally, the authors of this study attribute the high success rate to excellent client compliance.—Karen A. Moriello, DVM, Diplomate ACVD