Dealing with Dog Breath

The malodor from periodontal disease and halitosis is caused by accumulation of a microbial biofilm that results in inflammation. Twenty dogs were enrolled in a blinded, crossover clinical trial to evaluate a topical gel to control malodor. All dogs received a dental examination and cleaning; after, the clients applied either the active ingredient in gel form or a placebo q12h for 4 weeks. The dental cleaning was repeated at the end of this time, and dogs received the alternate treatment for another 4-week period. Halitosis was scored on a scale of 0 (nonexistent) to 10 (putrid); 3 clinicians scored each dog at 0, 4, and 8 weeks. Clients scored the dogs weekly. When the active ingredient gel was used, veterinarians and clients reported a decrease in oral odor.

Commentary
This study addressed the scourge of halitosis, citing that 40% of dogs aged 1–4 years have periodontal disease. This problem only increases with age because of the decreased ability of saliva to counteract free radicals. Volatile sulfur compounds from the general milieu of oral decay result in malodor. An antimicrobial antioxidant might mitigate this problem. In this study, a significant 4-week postinitiation improvement in scores was noted from initial treatment. The authors hypothesized that the success of this treatment is governed by control of oral flora and reactive oxygen species. Much human research is currently focused on addressing the problem of bacterial and biofilm products on oral odor. Regardless of whether this study provides hope for decreasing canine oral malodor, the importance of treating the root cause of the problem—periodontal disease—cannot be overstressed.—Ewan Wolff, DVM, PhD

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