# Salivary Mucoceles & Gland Removal



Types of salivary mucoceles in dogs (cervical, sublingual, pharyngeal, zygomatic) can be characterized by saliva accumulation in soft tissue spaces adjacent to glands.

This study described 14 dogs (7 toy/ miniature poodles) with pharyngeal mucoceles. Acute dyspnea was the most common presenting sign, and inspiratory stridor the second most common. Other signs included dysphagia, gagging, hypersalivation, coughing, stertor, and cyanosis. Aspiration yielded mucoid viscous material in 13 dogs, with cytology samples (from 2 dogs) showing a mixed inflammation with macrophages. Mandibular and sublingual gland excision was performed in 11 dogs, with salivary gland excision being the only surgical procedure in 3 of these dogs. Three other dogs had the mucocele aspirated and drained at gland removal, and 2 had mucocele marsupialization with associated gland removal. One dog that originally had partial excision of the mucocele without salivary gland excision had recurrence 3 weeks postoperatively. At this point the sublingual and mandibular salivary glands were excised and the mucocele marsupialized; evaluation 2.5 years later showed no recurrence. Because of the small number of cases in this study, comparison of surgical techniques was difficult; however, removal of the affected salivary gland was important.

# Commentary

Salivary mucoceles can be challenging to address, as the offending gland must be identified and removed. Pharyngeal mucoceles added to the challenge by being hidden in the oral cavity in a

potentially unstable patient. This largest study of pharyngeal mucoceles to date provided a new perspective beyond resection and marsupialization of the gland(s), although long-term follow-up was lacking in all except 2 cases. Index of suspicion for a pharyngeal mucocele should be raised when treating middleaged, male, small-breed dogs with appropriate signs. Because of the higher incidence of concurrent cervical mucoceles and the possibility that the gland may be the source of leakage (instead of ductular compromise), this study supported routine removal of the sublingual and mandibular glands.-Kristy Broaddus, DVM, DACVS

# Source

Pharyngeal mucoceles in dogs: 14 cases. Benjamino KP, Birchard SJ, Niles JD, Penrod KD. *JAAHA* 48:31-35, 2012.

# **Detecting Pneumothorax & Pleural Effusion**

Superimposition of air, fluid, and soft tissue structures can be an important limitation of conventional vertical beam (VB) positioning in radiography, as the appearance of pneumothorax and pleural effusion can become obscured. In horizontal beam (HB) projections, the x-ray beam strikes air and fluid interfaces tangentially, making them more evident.

This study evaluated HB radiography for diagnosis of pneumothorax and pleural effusion in dogs (n = 42) and cats (n = 5) with known history of thoracic trauma or with signs of pleural space disease. Thoracic radiographs were obtained using conventional VB right lateral (RL), left lateral (LL), and ventrodorsal (VD) or dorsoventral views, with at least 1 additional VD HB projection obtained in either RL or LL recumbency. Statistical analysis showed pneumothorax was significantly more likely to be detected and/or given a higher grade of severity in the RL HB projection as compared with other views. Radiologists reported more confidence in diagnosis when using VB views. When added to conventional VB projections, HB radiography can raise confidence in determining the presence and severity of pneumothorax and pleural effusion in dogs and cats.

#### Commentary

The authors should be praised for researching techniques to make the diagnosis of pneumothorax and pleural effusion with higher confidence; however, a gold standard (eg, CT) for comparison was not provided, so the findings can be somewhat subjective. In most clinics, the digital detector is permanently mounted in the Bucky tray; therefore, the HB technique cannot be performed by placing it above the table. A discussion of ultrasonographic detection of pneumothorax and pleural effusion would have been beneficial, as it has potential to be cage-side, which is safer due to lack of radiation with minimal patient manipulation and can be used to guide aspiration when indicated.—*Jean K. Reichle, DVM, MS, DACVR* 

# Source

Detection of pneumothorax and pleural effusion with horizontal beam radiography. Lynch KC, Oliveira CR, Matheson JS, et al. *VET RADIOL ULTRASOUND* 53:38-43, 2012.