



**SURGERY:**

**Laryngeal paralysis**

<b>Definition</b>	Laryngeal paralysis is a condition in which the arytenoid cartilages fail to open (abduct) during inspiration causing upper airway obstruction. This can be a congenital or acquired condition resulting in acute respiratory distress, cyanosis, and syncope. The underlying cause of this condition has still not been determined.
<b>Signs and symptoms</b>	Most patients present on an emergency basis as their signs go unnoticed until they are in a crisis. They frequently present with acute respiratory distress and collapse after activity during the hot and humid months. Dogs may have a history of exercise intolerance and inspiratory stridor with excitement, stress or during activity. A change in voice may be noticed by the owners and they may cough or gag after eating or drinking. These signs are slowly progressive and are more common in males than female dogs. Cats rarely suffer from laryngeal paralysis.
<b>Diagnostic tests</b>	Laryngeal examination is the gold standard for the diagnosis of laryngeal paralysis. The pharynx, larynx, and proximal trachea should be carefully evaluated for evidence of edema, mucosal ulceration, or masses. Thoracic radiographs should be performed to rule out pulmonary and cardiac disease. A single lateral cervical radiograph should be made to rule out masses, foreign objects or traumatic wounds. A complete neurologic examination should be performed, as most of these dogs have polyneuropathy. A barium swallow may be recommended to evaluate pharyngeal and esophageal function. A CBC, serum chemistry, urinalysis and thyroid function results are used to evaluate the systemic health of the patient prior to surgery.
<b>Diagnosis</b>	Diagnosis requires an oral examination under light anesthesia. Various induction agents such as thiopental or propofol can be used to provide a light plane of anesthesia and should only be administered to effect for evaluation of laryngeal function. If the patient becomes apneic upon induction of anesthesia, a respiratory stimulant such as Dopram (doxapram) can be administered intravenously to allow an accurate assessment of the laryngeal function. A lack of abduction of the arytenoid cartilages during inspiration is diagnostic for laryngeal paralysis and paradoxical motion of the arytenoid cartilages may be noted with severe disease.
<b>Treatment</b>	With severe signs, surgery is needed to open the airway to prevent repeated crises. The most commonly performed surgery is a unilateral arytenoid lateralization (tieback) procedure. This procedure permanently abducts one of the arytenoid cartilage thus opening the rima glottis. Bilateral tie back procedure is not recommended because of the increased risk of aspiration pneumonia. Patients experience immediate relief of respiratory dyspnea after surgery. Aspiration pneumonia is the most common postoperative complication that may occur days, weeks, or years following. Patients exhibiting signs of a moist cough, tachypnea, loss of appetite and lethargy should have thoracic radiography to rule out pneumonia. Dogs may still cough while eating or drinking, have a muted or raspy bark and mild inspiratory stridor. Overall, surgery improves their quality of life and minimizes the likelihood of recurrent respiratory distress.

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Michigan Veterinary Specialists provides surgical services at all three hospital locations. A member of the surgery team is on-call 24/7 to provide consultations to MVS emergency doctors and to perform emergency surgeries when. Our specialists are available for questions and consultations on medical conditions during the weekdays.

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