**Toxicity with a Delayed Dilemma**

Owners discovered their 2-year-old female boxer had chewed and punctured a metered-dose inhaler (MDI) of salbutamol estimated to have been half full (100 µg/dose, 200 doses per MDI). On presentation, the dog was tachycardic, mildly hyperthermic and hypokalemic, and had bilateral mydriasis and conjunctival injection. Examination was otherwise unremarkable. The dog was treated with IV potassium supplementation and discharged 24 hours after presentation.

Five hours after discharge, the dog was presented for lethargy, anorexia, and dysphagia. The dog appeared to have depressed mentation, along with mild left-sided head tilt, neck pain, and ptalism. Oral examination was unremarkable. Supportive care was initiated, but about 12 hours after readmission, progressive stridor and respiratory compromise developed. After sedation for intubation and placement of a temporary tracheostomy tube, oral examination revealed gross edema, focal mucosal ulcerations of the soft palate, and airway occlusion. Endoscopy revealed no abnormalities. CT revealed enlargement (90% of normal) of the caudal soft palate, and tissue biopsy was compatible with thermal trauma, most likely from release of compressed gas. Inflammation resolved ~6 days later, and the tracheal tube was removed. The dog was discharged after 8 days of hospitalization.

**Commentary**

This dog’s misadventure with a salbutamol inhaler proved to have more than one lesson: MDIs, like any medicine within reach, have significant overdose potential. Any aerosol container can cause delayed thermal injury that may complicate evaluation of emergency stabilization. In this case, delayed complications from frostbite (oral pain, dysphagia, anorexia) occurred. The common saying *the most frequently missed problem is the second one,* is a reminder of the delayed effects of thermal injury. Initial investigation of the oral cavity on sedated examination is important, and if serious injury is suspected, endoscopic examination is essential. Immediate intervention with pain medication, antiinflammatories, fluids, and other supportive care measures may avert crisis.—Ewan Wolff, DVM

**Source**