## Severe Salt Intoxication

A 5-year-old, 30-kg intact female Doberman pinscher was admitted to the intensive care unit at Lyon (in France) for acute onset of ataxia and seizures. One hour before presentation, the owners gave the dog about 100 g of cooking salt (3.5-4 g/kg is considered lethal) to induce vomiting after she ate about 10 g of chocolate, which is considered a nontoxic dose for this dog. The clinical signs of this dog included active seizing and no voluntary movement or response to painful stimuli. In addition, the dog had mydriasis, and pupillary light reflex/menace response was absent. The dog was tachycardic (200 bpm) and tachypneic (54 breaths/minute). Laboratory results indicated severe hypernatremia (200 mEg/L), severe hyperchloremia (180 mEg/L), and metabolic acidosis (pH 7.18). Initial treatment comprised fluids that contained 5% dextrose in water, a continuous infusion of metopimazine to control the vomiting, supplemental oxygen via a nasal catheter, and calcic nadroparin (low-molecular-weight heparin). Within 3 to 5 hours of initial treatment, the dog showed significant neurologic improvement. However, 24 hours after admission, the dog developed cardiac abnormalities. Following comprehensive diagnostics, preclinical dilated cardiomyopathy was suspected. Around the same time, the dog developed abnormal respiratory sounds. Pulmonary edema was suspected, and furosemide was added to the treatment regimen. Diarrhea and melena suggested mucosal ulcers in the digestive system. On the third day, the blood analysis indicated elevated BUN and creatinine levels, as well as low urine specific gravity; thus, acute renal insufficiency was diagnosed. Treatment included diet modification and placement of a urinary catheter for close monitoring of diuresis. The dog was discharged 10 days after admission, at which time clinical signs and electrolyte abnormalities had resolved completely. The dog was followed for several months and was doing well

**COMMENTARY:** Hypernatremia is an electrolyte abnormality that can be caused by different conditions, such as diabetes insipidus, vomiting, diarrhea, heat stroke, and salt ingestion (as in this case report). Severe hypernatremia due to salt ingestion is a rare, life-threatening condition, and clinical onset is considered acute. According to the authors, very few case reports of severe hypernatremia due to salt ingestion in dogs have been described in veterinary literature, and this case is the first to report survival of a dog with severe salt intoxication.—*Chris Wong, DVM* 

Successful treatment of severe salt intoxication in a dog. Pouzot C, Descone-Junot C, Loup J, et al. J VET EMERG CRIT CARE 17:294-298, 2007. ■