Averting Plant-Poisoning Fatalities

Urgent cases of accidental poisoning are common in dogs and cats. Establishing a prompt diagnosis is key to effective therapeutic intervention, particularly in situations where toxicity can be life-threatening. In this report, a 9-year-old female poodle presented with severe, locally extensive erosive and ulcerative lesions on the surface of the tongue accompanied by acute respiratory distress. Emergency procedures for anaphylactic shock were instituted immediately, and establishment of an adequate airway was attempted but could not be accomplished because of a swollen glottis. Despite multiple attempts to establish and maintain vital signs, therapy did not relieve severe respiratory distress, and fatal asphyxiation followed about 12 hours after the first clinical signs were observed. The diagnosis was poisoning by Dieffenbachia picta (dumb cane) based on clinical signs and the reported history (that morning the dog had chewed the thick plant stem to shreds).

Chewing the Dieffenbachia leaf or stem results in intense pain and an inability to speak (hence the name “dumb cane”), which can be immediate or can occur up to 4 hours later. The plant contains a well-known irritant to humans and animals when chewed—calcium oxalate crystals—which become imbedded in the mucous membranes of the mouth, tongue, and throat, posing a threat to children and young animals who may accidentally or intentionally bite this plant. If swallowed, laryngeal, esophageal, gastric, and ulcerative lesions may occur. Ingestion of large amounts can lead to significant toxicity and death if medical attention is not immediate. By comparison, with symptomatic and conservative management, most dogs recover from accidental ingestion of a small amount of dumb cane. Complete obstruction of the airway usually does not occur, and fatal asphyxiation from a swollen glottis is rare. An important diagnostic aid is correct identification of the Dieffenbachia picta plant (there are more than 25 to 30 recognized species of the tall, tropical, decorative, evergreen foliage plant with wide leaves and variegated green and cream markings). Local poison control centers provide effective telephone consultation services for veterinarians who may need poison diagnosis support.

COMMENTARY: Dieffenbachia picta (dumb cane) is a plant found in many homes. While animals generally recover uneventfully from the mucosal irritation and edema caused by chewing and ingesting it, in this instance exposure resulted in death. This article reinforces the importance of advising clients to seek prompt veterinary care in cases of suspected poisoning.—Deena G. Gregory, DVM, MS