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Accidental Fatal Poisoning of a Dog by Dieffenbachia picta (Dumb cane)

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ABSTRACT. A single case of accidental fatal poisoning by Dieffenbachia picta, (dumb cane) (Araceae) in a 9-y-old female Poodle is described. Clinical signs included severe, locally extensive erosive/ulcerative glossitis accompanied by marked dyspnea of acute onset. The animal did not respond to emergency procedures to relieve severe respiratory distress; fatal asphyxiation ensued from edema of the glottis a few hours after the first clinical signs were observed. According to the owner, the dog had access to a tall, potted dumb cane plant and chewed the thick stem of the plant intensely. The owner did not authorize a necropsy of the animal. The diagnosis of Dieffenbachia picta poisoning was based on the history of accidental consumption of dumb cane and clinical signs. A comparison of this single case with other reports of dumb cane poisoning suggests that dogs poisoned by Dieffenbachia species usually recover uneventfully with conservative management and that death from asphyxiation is a rare but possible consequence of this intoxication. Severe edematous swelling of the glottis with occlusion of the larynx airway passage can occur in those cases in which large amounts of sap are quickly squeezed from the plant during intense chewing. Death would occur if owners do not seek veterinary care immediately and if emergency procedures are not instituted on time.

Urgent cases of immediate referral to veterinary care due to accidental or malicious poisoning in dogs and cats are commonly seen in university hospitals and private practice (1, 2). Veterinarians and veterinary technicians responsible for heavy caseloads brought to emergency rooms are faced with multiple cases of intoxication in small animals (3). These include pesticides, heavy metals, household products, medications, snake venoms, spider and scorpion bites, bee stings and ornamental toxic plants (2-7). In many cases, the source of the poison is the owner’s house environment or the yard nearby where pets have free and unlimited access (3). To establish a prompt tentative diagnosis of intoxication, thus providing appropriate emergency treatment for poisoned patients through adequate supportive management, practitioners should be well aware of the wide range of poisons to which pets are exposed day by day in their surroundings. This is particularly true for those poisoned animals suffering life-threatening situations in which therapeutic intervention should be immediate (1).

The actual confirmed incident of negligent or intentional intoxication by various poisons requires a thorough history, a complete clinical examination and, depending on the case, a necropsy and a set of toxicological analyses of fluids, ingesta and tissue samples (8-10). Local poison control centers have been established to provide efficient telephone communication services to veterinarians seeking consultation. These centers are able to provide prompt answers to their inquiries about therapy for suspected animal poisonings and give information to practitioners and clients on the potential hazards and toxicity of pharmaceutical products, agrochemicals, environmental pollutants, household products, foods for human consumption and ornamental plants (11, 12).

Toxic plants and seeds are found in flats, houses and gardens worldwide. Accidental intoxications by house plants and outdoor plants are relatively common in dogs and cats (13, 14). The literature on plant poisoning in human beings is voluminous. There are numerous retrospective studies about the incidence of plant intoxication in humans in which poisoning by each ornamental plant is listed and ranked according to its frequency and clinical signs most frequently observed (15-18). In contrast, published manuscripts on poisonous plants to pets consist mainly of comprehensive reviews on the most common room and garden decorative plants that are toxic to pets and on the clinical picture and management of these plant poisonings (4, 5, 9, 14, 19-26).

Retrospective reports about the prevalence of plant poisoning in pets in which numerical data and percentanges for each ornamental plant intoxication are provided are scarce (1). In Brazil, for example, planned and organized records of plant poisoning in pets with tabulation of clinical signs and frequency of each plant toxicosis are readily available only on Web pages. Alternatively, this information can also be recovered through