

## Foraging for a Fungal Fix

Wild mushroom ingestion is associated with various signs, including ptialism, vomiting, diarrhea, abdominal pain, hypovolemia, and stupor. Mushrooms containing muscarine can cause parasympathetic effects (eg, miosis, bradycardia). Nonspecific signs that overlap with other toxicoses can make mushroom toxicosis difficult to diagnose unless the dog was seen eating mushrooms or mushrooms appeared in diarrhea or vomitus.

This case study analyzed the records of 5 dogs with mushroom toxicosis. All recently spent unsupervised time outdoors with wild mushrooms present and/or had mushrooms in the vomitus or diarrhea. The first abnormality noted was severe ptialism ( $n = 5$ ), followed by acute vomiting ( $n = 4$ ), diarrhea ( $n = 5$ ), and subsequent neurologic signs. Other signs

included hypovolemia ( $n = 4$ ), stupor ( $n = 3$ ), obtundation ( $n = 1$ ), hypothermia ( $n = 2$ ), and miosis ( $n = 2$ ). Serum lipase activity was elevated in 4 dogs and canine-specific pancreatic lipase (cPL) elevated in the remaining dog. Treated dogs ( $n = 4$ ) received aggressive IV fluid therapy, antibiotics, and supportive care and recovered within 24–72 hours. The fifth dog was euthanized because of sign severity. Despite life-threatening signs at presentation, dogs with mushroom toxicosis can recover with aggressive supportive care.

### ■ Commentary

Because the availability of specific diagnostic testing or the aid of a mycologist are often limited and the effects of poisoning vary from gastroenteritis to organ failure, mushroom exposures are best approached with appropriate decontamination,

symptomatic and supportive care, and hepatoprotectants. In these cases (ie, signs are suggestive of muscarinic receptor stimulation), a test dose of atropine (0.02 mg/kg IV) can provide valuable diagnostic information. If, after the test, mydriasis, tachycardia, and a dramatic cessation in salivation occur, it is unlikely the patient is in muscarinic overstimulation (or acetylcholinesterase inhibition), and additional atropine is not indicated. If no appreciable anticholinergic signs occur, muscarinic overstimulation is likely, and large doses of atropine (0.1–0.5 mg/kg) may be therapeutic.—*Ahna Brutlag, DVM, MS, DABT, DABVT*

### ■ ■ Source

Mushroom toxicosis in dogs in general practice causing gastroenteritis, ptialism and elevated serum lipase activity. Hall J, Barton L. *J SMALL ANIM PRACT* 54:274-279, 2013.

## GI Disease in Small Mammals

This review described the presentation, diagnosis, and treatment of common GI diseases in ferrets, rabbits, guinea pigs, rats, and hamsters.

A diagnostic plan for ferrets presenting with gastroenteritis was provided. Gastroscopy is a noninvasive tool allowing examination and collection of partial-thickness tissue samples. Common noninfectious diagnoses include inflammatory bowel disease, eosinophilic gastroenteritis, GI lymphoma, and liver disease. Infectious causes include *Helicobacter mustelae*, coronavirus, and *Eimeria furonis*.

In rabbits, a focused diagnostic plan is key to achieving definitive diagnosis when GI stasis is suspected. There are various causes of obstructions (eg, pellets, hair, GI tumors). Treatment generally involves



fluid therapy and pain management if surgical management is not warranted. Additional presentations reviewed included

liver lobe torsions, biliary cystadenomas, astrovirus infection, and coccidiosis.

Several reports of gastric dilatation–volvulus in guinea pigs have been released. Patients present with tachypnea, lethargy, anorexia, and lacking fecal production. Survey radiographs aid diagnosis, which must be differentiated from gastric stasis. Surgical correction has been unsuccessful.

Rats can develop hepatic sarcoma, with *Taenia taeniaeformis* as a predisposing factor. Ultrasonography or radiographic imaging aids diagnosis, but treatment options are unknown. The primary agent of GI disease in hamster colonies is

*Clostridium difficile*. Affected hamsters often die from associated diarrhea.

### ■ Commentary

Just as in companion animal care, GI diseases are some of the most common presenting conditions in small mammals. Similarities and major differences in disease conditions and treatments are reviewed, stressing the fact that exotic species are not just little dogs and cats. This study accentuated the need for specialized training, skills, and equipment to understand, diagnose, and treat these challenging cases.—*Adolf K. Maas, DVM, DAVBP (Reptile & Amphibian)*

### ■ ■ Source

Gastrointestinal disease in exotic small mammals. Huynh M, Pignon C. *J EXOTIC PET MED* 22:118-131, 2013.

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