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...not a creature was stirring, not even a...

By Mona Miller, DVM



Dr. Mona Miller lives in Lafayette with her young son and two cats. She has worked at Four Seasons Animal Hospital in Lafayette since moving here in 2001. She attended Cal as an undergrad, and received her DVM from U.C. Davis. She can be reached at Four Seasons, 938-7700, or by email to MonaSDVM@aol.com.

This year has seen the highest wild rodent populations in recent history, due to the cycle of a wet winter/spring and a cool summer, which allows more vegetation to flourish and remain through summer for longer. Voles, rats and ground squirrels have surged in numbers. These creatures have relatively short lifespans and achieve reproductive maturity early on, with short gestation periods. Thus, hundreds of offspring can be born during a single year.

The use of poisons to kill rodents (rodenticides) can be dangerous to any mammal (think pet dog, cat, even rabbit or rat who is allowed outside). There are four types of rodenticides, and all can be deadly to the animal that ingests the poison. The most common type is an anti-coagulant, a chemical that prevents blood from clotting. This results in internal bleeding within 2 to 5 days of ingestion. Symptoms are variable and dependent upon where in the body the bleeding is occurring. For instance, bleeding into joints will appear as limping. Likewise, difficulty breathing, distention of the stomach area, bloody vomit or diarrhea, and bruises on skin, eyes or mouth can also be symptoms; as well as general weakness or not eating. The antidote treatment to this type is Vitamin K medication. If bleeding has already started, then emergency medicine is vital for success, involving special blood tests to diagnose the clotting disorder, as well as blood or plasma transfusions to provide immediate clotting factors or proteins to "band-aid" the problem for 24 hours until the Vitamin K becomes effective. If you suspect or know that your dog has ingested rat bait, do not wait until bleeding has started before seeing your veterinarian. The sooner that Vitamin K is administered, the

sooner the clotting factors can start to build up again, and prevent internal hemorrhage.

The second most common rat/mouse poison is Cholecalciferol, which acts as a Vitamin D analog and increases blood levels of calcium and phosphorus. Once these levels become too high, kidney failure will develop within 2 to 4 days after ingestion of the poison. This requires emergency and intensive care, and prognosis is variable. There is no antidote, so treatment is based on supportive care for the kidneys and to dilute out the high calcium in the bloodstream.

The third rodenticide is Bromethalin, which results in swelling of the brain within 2 to 24 hours of ingestion. Symptoms will be neurologic, including weakness and wobbliness, muscle tremors, seizures and paralysis. Treatment is supportive and intensive and requires in-hospitalization care for 3 to 6 days, if recovery occurs.

The fourth rodenticide is commonly used as gopher bait - the zinc phosphide group. This poison releases toxic phosphine gas in the stomach when ingested, and secondary liver disease. Symptoms include stomach bloat, vomit, abdominal pain and shock.

If you suspect that your pet has ingested any rodenticide, you should seek immediate veterinary care. Additionally, it is helpful to your vet if you bring the poison package with you, to determine the active ingredient.

Reach the reporter at: info@lamorindaweekly.com

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