

ANTICOAGULANT RODENTICIDE TOXICITY

(Rat Bait Poisoning)

Anticoagulant rodenticides are poisons used to kill mice, rats, and other rodents by preventing blood clotting. They are commonly found in hard bait blocks, soft baits, and pellets, but may also be in powder, grain/meal, and liquid forms.

Poisoning occurs when a dog or cat ingests this type of rodenticide - usually when the poison is placed in and around buildings without protective bait stations. Poisoning after eating rodents killed by the rodenticide is called secondary or relay poisoning; this can occur but is rare because dogs and/or cats would need to eat many rodents that died from the poison.

HOW DOES POISONING OCCUR?

Anticoagulants prevent the coagulation (clotting) of blood by blocking the synthesis of vitamin K1 (an essential component needed for normal blood clotting), which will over time result in spontaneous uncontrolled bleeding.

SIGNS & SYMPTOMS

Initially, animals do not show signs of anticoagulant poisoning. After ingestion, it takes 1-2 days for vitamin K1 and clotting factors in the body to be used up. It can then take 3-7 more days before signs of blood loss can be apparent. Bleeding is not always obvious as it often occurs inside the body.

Visible symptoms can include bleeding from the mouth or nose, blood in vomit or stools, blood from the rectum or bruises and hematomas under the skin.

Signs of internal bleeding may include weakness, depression, increased respiratory rate, difficulty breathing, coughing (which may produce blood), pale gums, lack of appetite, enlarged abdomen, vomiting, swelling or pain in the joints. If bleeding happens within the brain or spinal cord, dogs may have neurologic signs. **If internal bleeding is not recognized and treated in time, it is fatal.**

HOW IS ANTICOAGULANT RODENTICIDE POISONING DIAGNOSED?

Most cases of poisoning are diagnosed in pets that have signs of bleeding and a known or suspected exposure to anticoagulant rodenticides. Blood work will likely be performed to assess blood clotting times, red blood cell and platelet counts. Radiographs (x-rays) and ultrasound may be used to check for blood in the chest or abdomen. Treatment is often started without testing if poisoning is suspected. If you think your animal has consumed rat poison, be sure to bring the packaging with you to help your veterinarian best diagnose and treat your pet.



TREATMENT

Early decontamination and treatment decrease the risk for serious toxicity. If ingestion occurred within a few hours, the veterinarian may induce vomiting. Once vomiting is controlled, activated charcoal may be administered to decrease the absorption of the rodenticide by the gastrointestinal tract. Activated charcoal should only be administered by a veterinarian.

The antidote to anticoagulant rodenticide is vitamin K1, a prescription drug. This can be given via injection or by mouth to increase the vitamin k1 levels in the body and prevent bleeding.

Depending upon the timing since ingestion and signs, hospitalization may be needed. Dogs developing more serious signs may require intensive therapy as they have an increased risk for death. In addition to vitamin K1, blood or plasma transfusions, oxygen therapy or removal of blood from the chest and/or abdominal cavity may be needed. Blood work to monitor blood clotting times, red blood cell counts, and platelet counts are commonly performed.

WHAT CARE WILL MY DOG REQUIRE AFTER TREATMENT?

When anticoagulant rodenticide poisoning occurs, vitamin K1 supplementation must be continued for several weeks. Approximately 48 hours after discontinuing the vitamin K1, blood clotting times will be evaluated to assure no further supplementation is needed. During the early stages of recovery at home, limited activity is recommended to prevent injuries that could cause bleeding. Once vitamin K1 supplementation can be discontinued, the dog can return to regular activities.

[Pet Poison Helpline](#) is a 24/7 resource for pet owners & veterinary professionals that require assistance treating a potentially poisoned pet. There is a fee of \$65 per incident that includes follow-up consultations for the duration of the case.

Find more info online at petpoisonhelpline.com



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