

ZINC Toxicity

Source:

Zinc poisoning can occur after ingestion of United States pennies minted during and after 1983, batteries, wood preservatives, paints, zinc oxide creams, zippers on various clothing and luggage items, board game pieces, herbal supplements, coating on some galvanized cookware, and the screws or nuts used to secure the lids on pet carriers. Zinc phosphide rodenticides are not a significant source of zinc but are toxic due to other ingredients.

Symptoms

- Pale gums
- Rapid, labored breathing
- Lethargy
- Anorexia
- Vomiting
- Diarrhea
- Discolored urine- red / brown colour
- Halitosis / bad breath
- Jaundice- yellow pigment to the skin
- Seizures

Toxicity

Zinc is irritating and corrosive, and interferes with the normal balance of copper, cadmium, calcium and iron in the body. Acute toxicosis causes a hemolytic anemia leading to the weakness, pale gums, rapid & labored breathing, discolored urine, and jaundice.

Diagnosis

Although zinc poisoning is definitively diagnosed by measuring the zinc level in the blood, other blood tests, combined with x-ray identification of metallic foreign material in the intestines, can help confirm the diagnosis of zinc poisoning. It is very important to distinguish zinc toxicity from other diseases (such as immune mediated hemolytic anemia) that may cause similar symptoms so that the animal is treated appropriately.

Treatment

Treatment is based on removing the zinc from the animal's body. This can require surgical removal of any metallic foreign material seen on x-rays, and may include binding any circulating zinc with special drugs (known as chelators). Fluid therapy is essential to help eliminate the zinc more quickly from the body, and blood transfusions may be necessary if too many red blood cells are destroyed by the zinc. Finally, eliminating environmental exposure is essential to prevent repeat contamination.

Prognosis

The prognosis in cases of zinc poisoning is usually good when early and aggressive therapy is instituted including surgery and/or blood transfusions.