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Giardia

Giardia, beaver fever

Affected Animals:

Dogs, cats, and humans. *Giardia* is the most common intestinal parasite of people, transmitted most frequently through contaminated water.

Overview:

Giardia is a parasite found in the intestines of humans and most types of domesticated animals throughout the world, including cats. It is also a common cause of diarrhea in cats, especially among cats in catteries and group housing situations.

However, healthy animals rarely will experience diarrhea or other symptoms unless they are exposed to an unusually high number of *Giardia*. Young kittens and debilitated older cats, both of which have weaker immune systems, are much more likely to show symptoms from moderate numbers of the parasite.

Protozoan organisms, *Giardia* appear in two forms: as a swimming trophozoite, or feeding form, and as a cyst that contains the swimming trophozoites. The cysts, and not the trophozoites, are transmitted from one cat to another when an animal becomes infected.

Clinical Signs:

Clinical signs of *Giardia* usually only occur in sick or debilitated adult cats or in young kittens. The diarrhea is usually pale, malodorous, watery, and steatorrheic, or containing fat. Some animals may lose weight but most will still have a good appetite. Animals that have a strong immune system rarely develop significant clinical signs of disease.

Symptoms:

See Clinical Signs.

Description:

Giardia is a protozoan parasite that can cause intestinal infection in cats, dogs, and humans. The organism has two main forms: a cyst form and a swimming trophozoite form. The cysts actually contain two trophozoites, protecting them from the environment.

The cysts, rather than the trophozoites, cause cats, dogs, and humans to contract *Giardia*. Cysts are shed or passed from the infected animal through its feces. If another animal ingests the fecal material with the cysts in it or consumes contaminated water or food, the cysts progress through the digestive tract into the small intestines. Upon reaching the small intestines, the trophozoites exit the cysts, mature, divide, and eventually go back into cyst form. Then, they will be passed back into the feces and out into the environment.

Some trophozoites do not go into the cyst form but get passed into the feces. However, trophozoites cannot survive for long in the environment and are not able to cause

infection if ingested by another animal. Cysts, on the other hand, can survive for weeks in the soil before being ingested and infecting another animal.

Healthy cats often can tolerate *Giardia* without becoming ill. *Giardia* is most likely to cause symptoms in cats that have a poorly functioning immune system, in young kittens, and in catteries or group-housed cats, where the parasites may exist in extremely high numbers. *Giardia* is uncommon in healthy, older cats that receive good care.

Diagnosis:

Often, the examining veterinarian will perform a special fecal flotation test that is likely to damage to the cysts or trophozoites less, or a direct fecal smear with a fresh sample of the cat's fecal material. These tests allow *Giardia* cysts or trophozoites to be identified under a microscope. A negative test result does not mean the animal does not have *Giardia*, because the *Giardia* cysts and trophozoites are not always passed in every bowel movement. Repeated fresh fecal samples may need to be examined over a period of a few days to determine the presence of *Giardia*.

Other tests are available for the detection of *Giardia*. Now available in some areas, a test called ELISA analyses for *Giardia* antigens in a fecal sample. Another type of test is a direct immunofluorescent test that detects the presence of *Giardia* cysts in feces. This test has to be sent off to a special laboratory, so there is a delay in receiving the results.

Prognosis:

Giardia is a very treatable condition and response to treatment is rapid. Most animals recover quickly and do not have recurrent problems. If proper prevention steps are not taken, however, it is common for animals to become re-infected.

Transmission or Cause:

Transmission occurs when the cat swallows the *Giardia* cysts that are found in the feces of an infected animal, or in contaminated food or water sources. The cysts cause infection when swallowed by a cat.

Treatment:

Treatment of *Giardia* involves the use of medications such as metronidazole, which should not be given to a pregnant animal. Fenbendazole has been shown to be very effective in the treatment of *Giardia* infections in dogs, but has not been studied in cats. However, veterinarians have had success treating cats with fenbendazole.

Prevention:

Prevention involves strict sanitation and the use of cleaning agents proven effective in eliminating *Giardia*. In catteries and group housing facilities for cats, routine disinfection of the entire facility is critical. Cats should be bathed often because they can carry the *Giardia* cysts in their haircoat. The use of medications such as metronidazole periodically may be very beneficial in preventing further infections.