Histoplasmosis in Dogs

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Histoplasmosis is a fungal infection that can infect dogs, cats, and people. It is caused by the *Histoplasma capsulatum*, which is found in the soil and enters the body through the lungs. The disease causes a variety of respiratory and intestinal symptoms. Some animals recover from the infection without any therapy and others require treatment with antifungal medication that is usually successful.

Where is *Histoplasma* found?

Histoplasma prefers areas that are moist and humid and grows best in soils that contain nitrogen-rich organic matter such as bird or bat droppings. It has been identified in the soil of 31 states in the U.S. Most infections occur in the region of the Ohio, Missouri, and Mississippi rivers.

Who gets histoplasmosis?

Dogs and cats can both be infected. Infections are more common in outside dogs and cats, particularly in hunting dogs. Animals of any age can get histoplasmosis, however, most infections occur in animals under four years of age.

How do pets get infected?

Dogs get infected by inhaling the spore-like particles of the fungus that inhabit the soil. These tiny particles are small enough to reach the lower respiratory tract (lungs). A few cases of infection in strictly indoor animals have been reported and it is suspected that potting soil or dirt brought in from outside may be the source of infection in these animals.

What are the symptoms?

The symptoms are varied and depend somewhat on the severity of the infection. Histoplasmosis infections start in the lung. As the fungal organisms replicate, the animal can develop a respiratory form of the disease. Many healthy animals will recover from the milder respiratory infections on their own. In other animals, particularly ones with a poor or deficient immune system, the respiratory infection may become more severe or the infection may spread to the gastrointestinal (GI) system, lymph nodes, spleen, liver, or eyes.

The most common symptoms in the dog or cat are weight loss, fever, loss of appetite, and depression. Labored breathing with increased lung sounds is present, and many animals may also have a cough. In dogs with the GI form, diarrhea and blood in the stool are often common symptoms. In addition to these symptoms, both cats and dogs may be anemic and have pale gums.

How is histoplasmosis diagnosed?

Diagnosis of histoplasmosis is often made from information obtained from the history, symptoms, x-rays of the chest and abdomen, and by finding the organisms in the infected tissue. A needle aspirate or biopsy of the infected tissue can often yield some of the small budding fungal organisms.

How is histoplasmosis treated?

In many simple cases of the respiratory form of histoplasmosis, treatment may not be necessary because the animal will clear the infection on its own. But because of the risk of the infection spreading or becoming more severe, treatment is often initiated as soon as a positive diagnosis is made.

The treatment of choice is an oral antifungal drug. The most commonly used ones are itraconazole or fluconazole. Ketoconazole is sometimes used when cost is a consideration, though it may not be as effective and can be more toxic than itraconazole. The treatment usually lasts several months or longer. The success in treating histoplasmosis is very good if the correct treatment is used and instituted before the animal becomes too debilitated.

How can I prevent my dog from getting histoplasmosis?

There is no vaccine to protect against histoplasmosis. The best prevention is to avoid areas where histoplasmosis is known to be a problem. Areas where large numbers of birds or bats roost should also be avoided. Infections are not transmitted between infected animals or between animals or humans. While humans can get the infection, they get it from the fungal spores in the soil just like animals do.

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