



Blastomycosis

Blastomycosis, commonly called Blasto, is a fungal infection that can affect the lungs, eyes, skin, and bone. The fungus that causes the infection, *Blastomyces dermatitidis*, is common in the Ohio River Valley and is in the soil.

After inhaling spores in the soil, the fungus can spread through the body. Dogs that “follow their nose”, such as Beagles and other hounds, are more likely to be infected. Humans can also be infected. The infection is rare in cats.



Signs

The signs of this disease depend on the location of the body that is affected. If the skin is infected, large oozing sores occur. If the eyes are infected, the dog can go blind. Dogs with the lung form of Blasto can have difficulty breathing, coughing, and exercise intolerance. Bone infection will cause lameness.

Almost all dogs that have a form of Blasto will have a decreased appetite, decreased activity, and a fever. Often, dogs with one form will develop other forms as the disease progresses.

Diagnosis

Any dog that is not feeling well should have a full physical exam. The doctor will examine the eyes for signs of infection, listen to the lungs for sounds of infected lungs, and listen to the heart to rule out signs of heart failure.

The doctor will also examine skin sores, and palpate legs for other causes of lameness. Blood work will monitor the body's changes in response to the infection.

If there are skin sores present, we can look at a small sample of the cells to see if the fungus is present. The fungus has a characteristic budding appearance. The fungus can also show up in biopsies such as ones from lymph nodes. Actually seeing the fungus leaves no doubt as to the diagnosis.



We will take x-rays to evaluate the lungs. X-rays show a snowstorm like pattern in the lungs and is highly suggestive of a fungal infection.



Unless we see the fungus in a skin sample or biopsy, we will send a urine sample to an outside lab to confirm the presence of the fungus.

Treatment

Itraconazole, an antifungal medication, is the treatment of choice but is relatively expensive. Therefore, the antifungal medicine, fluconazole, is usually tried first. Other antifungal medicines are available but some do not work as well while others are very expensive.

Dogs with Blasto need a long course of antifungal medicine, usually for 6-8 months. If treated aggressively, most dogs are cured. However, there is a 20% chance that the infection could recur within 1 year of treatment.

Other medicine may be prescribed to make the dog more comfortable while the antifungal medicine takes effect. Since all of the available antifungal medicines can affect the liver, regular blood testing is required. If your dog starts to show signs of liver damage, the doctor will prescribe a liver protectant.

Human Infection

Humans cannot be infected directly from the open sores of a pet infected with Blasto. The infective form of the fungus occurs if these sores are covered with bandages and then someone becomes infected by inhaling it. Therefore, if your dog has a protective bandage covering a sore caused by Blasto, make sure to wear gloves and a facemask when changing the bandage. Always wash your hands thoroughly afterwards.



Humans can also be infected by penetrating wounds by something that contains the fungus or by breathing in the spores from the area that infected your dog.