

Golden Retriever Rescue of Wisconsin, Inc.

A Fungus Among Us: Blastomycosis!

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The president of GRRoW asked me to examine this serious disease for members. Typically veterinarians diagnose dogs with this disease after they have visited the Eagle River area. However, recently there have been dogs in the Greater Milwaukee area that have been infected locally!

What is it?

The name Blastomycosis may not sound familiar. Veterinarians know it well. It's a fungus that commonly infects dogs and some people in Wisconsin. Left untreated, it can easily kill.

Where does it come from?

This fungus grows in the soil and releases spores to reproduce itself. Blastomycosis does prefer a specific soil type, though. It generally grows well in moist organic laden soil. The state Mecca for infection is around the Eagle River area in northern Wisconsin. Marshlands and woodlands in other areas of Wisconsin may also have the fungus, too. Ironically, we can see it occasionally contracted in urban areas. There it can be associated with construction where the earth has been excavated and spores have been released into the air. There may not even be evidence of the typical moist environment the fungus prefers. Apparently, spores can be locked away and dormant in the soil for a long time. During 2006, in Oak Creek a suburb of Milwaukee there were a significant number of dogs that were reported to be infected. These dogs did not have any history of going up north. Unfortunately, there is no good test to detect its presence in soil and no way to eliminate it from the soil.

What kinds of pets get it?

Large breed male dogs seem to be most predisposed. It is not known exactly why this happens. We know that cats *rarely* get it.

How does it infect dogs?

Dogs inhale the spores. The fungus infects the lungs and can disseminate to the rest of the body. After the lungs, it may infect the central nervous system, eyes, skin, bone, or other areas. Veterinarians most often see it in urban dogs that have vacationed or spent a weekend with their family in northern Wisconsin—with the above noted exceptions.

How do veterinarians diagnose it?

A vet *must* piece together various forms of evidence to form a diagnosis. There is no one good test. We have to ask lots of questions: Where has this dog been and what is his lifestyle? Does he have skin lesions, coughing or other lung signs, lameness, fever, eye problems, enlarged lymph nodes or central nervous system issues? Does examination of skin discharge under the microscope show the fungus? Do chest x-rays or radiographs suggest infection? Unfortunately, there isn't a reliable specific blood test for diagnosis. A blood test can *sometimes* be helpful, but not definitive. Many symptoms of Blastomycosis infection suggest totally different diseases, as well. Real medical diagnoses are not as easy as they appear on television. Now you understand why it can be challenging, costly and time consuming for a veterinarian to diagnose a dog!

What is the treatment for dogs?

The treatment is long and expensive. This is the nature of treating many types of fungi. Since this is not a bacterial but a fungal infection, antibiotics are not used. Among antifungal drugs, oral Itraconazole is preferred because of its safety record in animals. Dog owners have to often give the medication for many months. The overall outlook for a dog's future depends on where and how extensively the fungus has spread. Mild lung

involvement without spread to other organs indicates a good outlook. Most of these dogs live with treatment. If there is central nervous system infection, more severe lung disease, or eye involvement, the outlook is poor. Even with treatment most dogs in this group will die. In either scenario, treatment takes real commitment from a dog's owners and his vet.

Can this disease be prevented?

Unfortunately, there is no vaccination made that can protect dogs. Avoidance is the best prevention. Fortunately, there are some areas up north that have posted warnings or are known to be dangerous by local residents. You can also contact the local health department for specific information on locating these areas. Blastomycosis in urban construction sites can pop up without warning, so avoidance there is not always possible.

My dog has Blastomycosis. Is it contagious to me or other members of my family?

No. People virtually cannot contract it from an infected pet.

Reputable Links to Addition Information:

1. U.W. School of Veterinary Medicine: <http://www.vetmed.wisc.edu/pbs/courses/blasto/faq.html>

2. Mycologist Dr. Thomas J. Volk, University of Wisconsin-La Crosse:
http://botit.botany.wisc.edu/toms_fungi/jan2001.html

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About Dr. Beatty:

Dr. Beatty graduated from the University of Wisconsin Madison School of Veterinary Medicine in 2001. Veterinary school is just as difficult to enter and is equally as challenging as medical school. He focused on exotic pets as well as cats and dogs. In order to properly care for pets his education never stops. Dr. Beatty regularly attends continuing education events so he can learn new medical and surgical skills to benefit our patients.

Since graduation he has worked in the greater Milwaukee area. He enjoys seeing all companion animals-dogs, cats, birds, reptiles, rabbits, ferrets, chinchillas, guinea pigs, sugar gliders and other small mammals. His clients especially appreciate his gentle nature with their pets. Dr. Beatty is still amazed by the deep bond that people share with pets. One of his greatest joys in life is to care for animals.

In his free time, Dr. Beatty enjoys gardening, home handyman projects, going to the Menomonee Falls dog park, and reading.

