Aspergillosis in Cats

Drs. Foster & Smith Educational Staff

Aspergillosis is a fungal infection that develops in the nose and sinuses of cats and dogs. In some areas of the country these infections can be fairly common. Infections with this fungus show very characteristic symptoms including nasal discharge. Aspergillosis can be difficult to diagnose and treat. Early detection and treatment are very important for controlling this potentially damaging disease.

How do cats get aspergillosis?

Aspergillus is a very common fungus that is found throughout the environment. Most animals and people will come into contact with this fungus at some point in their lives, however, most animals do not develop infections. Most infections occur in animals that have a poor or deficient immune system, a prior sinus infection, or in animals that have been on prolonged antibiotic therapy. In addition, animals that are undergoing chemotherapy or have a pre-existing disease such as diabetes mellitus are more prone to developing aspergillosis. However, *Aspergillus* can infect healthy animals with a normal immune system as well. Cats are much less likely to develop this disease than dogs.

The animal inhales the *Aspergillus* spores and the fungus takes up residence in the nasal passages. There are several forms of the disease that range from a minor infection on the surface of the mucous membranes to a fulminating form where the bony passages in the sinuses are rapidly destroyed.

What are the symptoms of aspergillosis?

There are three symptoms that are characteristic of aspergillosis:

- A profuse, clear to opaque discharge from the nostrils that may alternate with episodes of nose bleeding.
- Ulcerations on the external part of the nose.
- Pain or discomfort in the nose or facial area.

One, two, or three of these symptoms are usually present in infections with *Aspergillus*.

How is aspergillosis diagnosed?

There are several ways to obtain a positive diagnosis of aspergillosis. Swabs of the nasal area that are examined under the microscope are sometimes diagnostic, as are fungal cultures of the area. However, many times these fail to identify the organisms and could also be positive in a cat whose symptoms are not due to the *Aspergillus*; i.e., many normal animals may have *Aspergillus* in their nasal passages. Therefore, their use in detecting aspergillosis usually is not recommended. Radiographs (x-rays) of the sinuses and nasal areas often reveal a destruction of the bones in the sinuses.

The use of a small flexible bronchoscope to examine and obtain a biopsy of an infected area inside the nasal cavity or sinus is another effective diagnostic technique. There are also several blood tests including the AGID and ELISA tests that have given fairly accurate results and are a useful diagnostic tool.

What is the treatment for aspergillosis?

There are two forms of treatment, topical and systemic. For systemic treatment, oral antifungal drugs such as itraconazole or fluconazole are usually used. The cure rate with these products is at best 70%. An alternative approach is periodic infusions of the topical antifungal drug enilconazole through surgically implanted tubes. The success rate for this treatment is reported to be as high as 90%. This treatment can be labor intensive, messy, and not well tolerated by the animal. A newer approach to the topical treatment has been studied in dogs. The dog is anesthetized, and the topical antifungal agent clotrimazole (Lotrimin) is infused under pressure into the sinus cavities. One study showed a 94% success rate in dogs with this one time treatment. The intranasal infusion with clotrimazole may soon become the treatment of choice for this disease, and may come to be used in cats as well.

Regardless of the treatment method, the most important factors in successfully treating this disease are early recognition and treatment.

How can aspergillosis be prevented?

Aspergillus is not transmitted between animals or humans; infections come from the environment. However, infected animals should still be handled with care and owners of an infected animal who wear contact lenses should be aware that aspergillosis can cause serious eye disease. If you ever notice ulcerations on your pet's nose or a large amount of nasal discharge make sure to have your pet examined by a veterinarian as soon as possible.

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