Feline Asthma

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Feline asthma is a relatively common disease of cats that may be called by many other names including chronic bronchitis, bronchial asthma, and allergic bronchitis. Asthma is a disease of the lower respiratory tract often characterized by wheezing, coughing and respiratory difficulty (especially on exhalation). Severe cases may involve episodes of acute respiratory difficulty that may be life threatening.

There are many potential underlying causes of asthma. Though it is often seen as an allergic disease, current data suggests there may be infectious components as well. Inhaled allergens cause sudden contraction of the smooth muscles around airways, leading to typical acute clinical symptoms. Over time, repeated stimulation and immune responses lead to inflammation and thickening of the airways. It is usually impossible to determine which allergens cause asthma in individual cats, but common ones include grass and tree pollens, cigarette or fireplace smoke, various aerosols and sprays (hair sprays, deodorants, flea sprays, deodorizers), and dust from cat litter.

Feline asthma is found in all areas of the world and in cats of all ages; however it is most commonly seen in young to middle aged adults. Males and females are equally affected. The prevalence in the general adult cat population is approximately 1%. The most common symptoms in cats with asthma are wheezing and coughing. The coughing has been described as a dry, hacking cough that could be confused with gagging or retching. Many cats with asthma are misdiagnosed as having hairballs. Providing your veterinarians with video recordings of coughing episodes may be helpful in the diagnostic process. Paroxysmal episodes of coughing occur frequently in some cats, though in mildly affected cats, coughing and wheezing may occur only occasionally. Many cats with asthma are asymptomatic in between acute and severe bouts of airway constriction. The most severely affected cats have daily coughing and wheezing and many bouts of airway constriction, leading to open-mouth breathing and panting that can be life threatening.

The symptoms of asthma can mimic other diseases, such as heartworm, pneumonia (especially bronchopneumonia) and congestive heart failure. Lungworm is an increasingly common cause of lower airways disease that can closely mimic asthma. The diagnostic process for asthma involves ruling out other concurrent diseases while ruling in asthma. “Auscultation” (listening to lung sounds using a stethoscope) is a key part of diagnosis asthma. The next step is often chest X-rays to evaluate the size and shape of the heart, the presence of fluid in or around the lungs, patterns that could indicate cancer or pneumonia, and inflammation of the bronchi. Other signs of asthma on X-rays include collapsed lung lobes (often the right middle), and over inflation of the lungs. Further workup usually includes a complete blood count, biochemistries, and feline heartworm testing. A specific test called “nt-pro-BNP” may be used to rule out heart disease. Fecal testing may be used to look for potential lungworm infection.
Definitive diagnosis of feline asthma often requires a BAL (broncho-alveolar lavage). The technique is performed under general anesthesia, with the aid of a scope (a small camera attached to a narrow tube) or “blindly”. Most BALs in cats are performed with the blind method. This entails instilling a very small amount of saline into the lungs, sucking it out again, and examining the fluid under a microscope to look for signs of parasites, infection, and inflammation.

While definitive diagnosis of asthma can be a lengthy and complex process, many cat owners and veterinarians chose to try more symptomatic treatment based on less invasive testing such as radiographs, bloodwork, and physical exam findings. The level of diagnostics needed for an individual case should be decided by careful evaluation of each specific cat and discussion between owners and vets.

While feline asthma is a chronic progressive disease that cannot be fully cured, it can often be managed for many years with a good quality of life. Medications can reduce the symptoms of asthma a great deal, but may not be able to eliminate coughing fully.

First-line treatments for asthma have traditionally been corticosteroids such as prednisolone. While these are often effective at managing disease, they carry some risk of systemic side effects and are no longer a first-line choice.

Because of the association between asthma and bacterial infection (specifically a bacteria called *Mycoplasma felis*), cats with asthma are often given a course of antibiotics soon after diagnosis (doxycycline is commonly used, though many drugs are effective). Empirical therapy for lungworms may also be given, often using fenbendazole or topical drugs such as praziquantel (Profender ®).

In recent years, many veterinarians have found that the most effective long term therapy for feline asthma may be to use inhalers such as human asthmatics use. A mask and spacer system, called AeroKat®, has been invented to enable cats to use inhalers or puffers. This system is similar to the mask and spacer system used to treat babies and small children. Human pediatric puffers may also be used in some cats.

The most important type of drug for treating feline asthma is a corticosteroid to reduce the chronic inflammation. The most commonly prescribed corticosteroid inhaler contains fluticasone (Flovent®). This may be given daily, or intermittently during flare-ups. Some feline patients also benefit from another type of medication called a bronchodilator. Bronchodilators help open the airway at times of severe coughing or wheezing, but are not usually given on a continuous basis. One common bronchodilator inhaler used for humans and cats is salbutamol (Ventolin®).
Some feline asthmatics may be given oral medication. This may be necessary if the patient does not respond well to inhaler therapy alone, but the amount of oral medication given is usually less than if the cat was not on inhaler therapy at the same time. While oral therapy may be less expensive than inhaler therapy, inhalers may be more effective (as they directly target the lungs) and have fewer side effects. Prednisolone is the most common oral medication used to treat asthma, though dexamethasone may also be used. Regardless of the type of medication used, it is important to notify your veterinarian if there is any change in your cat's condition while on asthma medication. While long acting steroid injections may be used to treat asthma, they are not recommended due to the risk of side effects and difficulty controlling dosages.

Along with medical therapy, some steps may be taken in the home to reduce the symptoms of feline asthma. Avoiding smoke from fireplaces and especially cigarettes is very important. Smoke tends to settle near the floor in a room at the cat's breathing level, meaning they receive a higher dose than humans in the same room. Reducing the use of air fresheners and other household sprays can also be effective. Owners should use human grooming products that are in spray form, such as hair sprays or deodorants, well away from the affected cat. Changing to a low-dust clay cat litter or one that is made of an alternate material (such as silica) may be effective as well. Air purifiers such as heap filters may also be helpful in reducing exposure to allergens. Any activity that is associated with symptoms of asthma in the individual cat, such as going outside in cold weather, should be avoided. Finally, obese cats will benefit greatly from weight reduction.

Just like in human asthma, some asthmatic cats may require only intermittent medication, used in the times of year when their symptoms are worst. Others may require daily medications year-round, either in the form of systemic drugs or inhaled puffers, or a combination of the two. Carefully tracking the disease through daily monitoring at home, regular physical exam, and potentially intermittent testing such as bloodwork and X-rays will allow for a cat's individual needs to be identified and a patient-specific treatment plan devised.

For more information:

Veterinary Partner:


Cornell Feline Health Center:

http://www.vet.cornell.edu/fhc/health_information/felineasthmawhatyouneedtoknow.cfm

Aerokat: http://www.aerokat.com/

Feline Asthma: http://www.felineasthma.org
References


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