MALTMAN COSHAM VETERINARY CLINIC

**FELINE ASTHMA**

Feline asthma is very similar to its human counterpart and many people are not aware that cats are susceptible. The disease is a chronic one which means that the cat is affected all the time. However, the signs are generally subtle and only occasionally will severe bouts of shortness of breath be seen. The condition is also sometimes called allergic airway disease, allergic bronchitis, chronic bronchitis or chronic small airway disease but these classifications are academic based on the exact nature of the inflammation and the end result is the same.

Asthma involves constriction of the small airways in the lungs, called bronchi. The bronchi either respond to an allergic stimulant or to direct irritants such as pollens, cigarette smoke, dust (including in litter trays), perfumes or household cleaning sprays. The airways respond by constricting the muscle in their walls which makes them narrower and limits the inciting cause moving deeper into the lungs. The airway is further narrowed by inflammation and the production of mucus. Breathing becomes more difficult through the smaller bronchi.

Symptoms can be very mild and often go unnoticed by owners until the disease becomes more dramatic. Increased breathing rates (30-40 per minute), reduced exercise levels, subtle wheezing or cough can all be early indicators of asthma. Sometimes, sudden onset laboured breathing may occur, which will be very distressing for the patient and he or she may pant open-mouthed like a dog.

X-rays of the chest show characteristic thickening of the airways and “air trapping” within the lungs, as well as helping to rule out other diseases which can mimic the signs of asthma, such as heart disease, bacterial infections, lung parasites and cancer. Endoscopy may also be used to examine the inside of the bronchi. Samples of fluid can be taken with a catheter placed through a special channel in the endoscope and these will be sent to the lab to analyse the cells and bacteria present. Certain types of cell are more numerous than normal in asthmatics.

Anti-inflammatory drugs aim to reduce the inflammation in the airway which will reduce the narrowing and also help prevent the constriction of the bronchi in the first place. Steroid drugs are used for this and can be given orally, by injection or by inhalation in the same form that human asthmatic use as puffers. In the past, vets have relied on oral and injectable steroids, but these do make the patient more prone to side effects such as increased appetite and drinking, weight gain and potentially diabetes mellitus. Nowadays, steroids can also be administered by inhalation using a special device called an Aerokat spacer which moves the drug from the puffer towards a face mask for the cat. Many cats will tolerate this surprisingly well and only have to have the mask on for 7-10 seconds; it is often easier than administering tablets. Effort should be made to accustomise the patient to the mask before you attempt to put it over their face; wrapping the patient in a towel with just the head visible will help you to control him or her. More details can be found on the Aerokat website www.aerokat.com and the Feline Advisory Bureau website www.fabcats.org shows a good video demonstrating administration of inhaled medications to cats.

Bronchodilators are used in conjunction with steroids to relieve the contraction of the bronchi and make them wider (dilated). They can be given by injection in emergencies or orally at home, but may now also be given via the inhalation chamber.

It is equally important to work at reducing the exposure to irritants. Steps can be taken to minimise the exposure to irritants such as dust, cigarette smoke and household sprays. Vacuuming frequently can worsen the situation as allergens are too small to be kept in the vacuum bag and are dispersed through the air. Consider purchasing a vacuum with a HEPA or electrostatically charged microfilter which will overcome this problem and then vacuum regularly. Using a "low dust" type of cat litter may help. Particularly dry air can sometimes be a problem and human asthmatics often prefer more humid conditions which help to stop the airway drying out. This can be a consideration for cats, especially if they like to lie by a fire or radiator; placing bowls of water nearby which can evaporate in the heat to keep the air moist may be of benefit. Prevent exposure to cigarette smoke and perfumes as much as possible.

The prognosis depends on the severity of the disease and on the time before diagnosis and treatment. In cats where the time before treatment is long, possibly because their initial signs are subtle or because the initial treatment is difficult to administer, there may be a worse prognosis because irreversible fibrous changes can occur in the airways. Nonetheless, the majority of cats respond well to treatment, although acute severe attacks can prove fatal without emergency treatment.