

INFORMATION SHEET:

Feline Hypertrophic Cardiomyopathy (HCM)

Summary

Cardiomyopathy refers to a group of diseases where the predominant feature is impairment of the heart muscle, and is a significant problem in the pet cat population. Classification of cardiomyopathies has been difficult due to the overlapping nature of many cases that do not fit into one of the major groups.

The most common type of cardiomyopathy is Hypertrophic Cardiomyopathy (HCM). HCM is a disease characterized by abnormal thickening of cardiac muscle, and can be primary or secondary in origin. Primary cardiomyopathy is diagnosed when an underlying cause can not be identified. Secondary HCM occurs as a result of other disease such as high blood pressure (hypertension) or an overactive thyroid gland (hyperthyroidism). Treatment of the underlying conditions may improve, but not always reverse, the heart changes.

Regardless of the classification or underlying cause, once pressure within the heart increases one of the heart chambers (the left atrium) dilates in response. Eventually these continually increased heart wall pressures may lead to congestive heart failure (abnormal fluid in the lungs, chest and/or abdomen). Abnormal heart rhythms are frequent.

Clinical signs

Due to their sedentary nature a large number of affected cats have no prior symptoms of cardiac disease until the onset of congestive heart failure (CHF). CHF may present with respiratory difficulty due to fluid accumulation in the lungs or the space around the lungs (pleural effusion). Some cats may also present with back leg paralysis due to the formation of blood clots in the aorta. Physical examination at a routine check-up prior to the onset of congestive heart failure in cats with underlying cardiac disease may reveal abnormal heart sounds and rhythms. These should never be ignored.

Diagnostic tests

Diagnostic tools are used to confirm the diagnosis, have a baseline for future monitoring, give a prognosis and guide treatment. They consist of:

- **Radiography** (x-ray) is performed to assess whether fluid in the lungs (pulmonary oedema) or pleural effusion is present or not, and to visualize heart size. It is good to have a baseline to assess treatment response and give a prognosis in the follow-up situation.
- **Electrocardiography** enables us to assess heart rate and rhythm. Cardiac arrhythmias (rhythm abnormalities) are fairly common with HCM.

- **Echocardiography** or ultrasound of the heart enables us to visualize the cardiac structures and function. This test is essential to confirm the diagnosis and determine what type of cardiomyopathy is present.
- **Blood pressure** may be measured and **blood tests** may be taken to ensure medications can be safely administered.

Treatment options

Due to the complexity of cardiomyopathy in cats, the clinical course and outcomes are difficult to predict. Studies in cats without symptoms evaluating the efficacy of therapeutic intervention have not been performed. Consequently, there is no clear consensus among veterinary cardiologists regarding the optimal therapeutic approach. Despite the lack of veterinary data, several treatment strategies may be justified based upon theoretical benefits and comparative studies in human and animal models with cardiomyopathy. Traditionally, therapeutic recommendations are based on morphological data obtained during echocardiography.

Medications regimes should be tailored for each individual animal based on data obtained from physical examination, echocardiography, electrocardiography, and radiography. In many cases, several different treatment strategies may be used to address the problem. The medication used will depend on frequency of administration, available formulation, and response to treatment.

Monitoring the response to therapy for the particular goal determined at the onset of therapy is imperative. This allows titration of the medication. If an appropriate therapeutic response is not obtained re-evaluating the goals or altering the treatment strategy is recommended. Regular follow-ups need to be performed.

When to contact your veterinarian

You should contact your veterinarian if your pet shows any of the following:

- Coughing
- Poor appetite or excessive listlessness

If your cat shows any of the following, then **urgent** veterinary attention should be sought:

- Rapid breathing
- Collapse
- Purple tinged gums or open-mouthed breathing