



FELINE CARDIOMYOPATHY

What is cardiomyopathy?

Literally, the term "cardiomyopathy" means disease of the heart muscle. More specifically, cardiomyopathy (CM) is a disease of the heart muscle in which either the heart walls thicken greatly (hypertrophic and restrictive forms) or stretch greatly (dilated form). In either form, the heart's ability to pump enough blood to the body's tissues is significantly compromised and leads to an eventual state of heart failure.

Several causes of feline cardiomyopathy have been identified. Hypertrophic CM has been associated with hyperthyroidism in older cats. A deficiency of taurine, an essential amino acid, will cause dilated CM in the cat. The restrictive form is associated with an unidentified inflammatory process within the heart muscle. However, many cases of CM are not caused by any of these processes, and we do not understand their origin.

What are the symptoms of cardiomyopathy?

Cardiomyopathy is a disease that usually takes several weeks to months to progress to a serious stage. During the early weeks of the disease, the cat will probably look normal. Cats have the ability to hide serious illness until it reaches a crisis stage. Therefore, most cats that develop clinical signs of cardiomyopathy will appear to have been ill for only a few days. A few days of inactivity and poor appetite occur first. Just prior to the state of heart failure and death, the cat may become very inactive and exhibit labored breathing. Both may be due to insufficient oxygen transport to the body's tissues; the latter may also be due to a collection of fluid in or around the lungs. Cats with CM are prone to producing blood clots within their hearts, which may become lodged in the bloodstream once they leave the heart. Some cats, therefore, will present with signs of hind leg lameness/paralysis and pain due to these clots. Immediate treatment to restore circulation is needed in these cases.

How do you diagnose cardiomyopathy?

Diagnosis is often made with a chest radiograph (X-ray). The heart often has an abnormal shape and fluid in or around the lungs may be detected. Many cases also require better visualization of the heart with an echocardiogram, or ultrasound exam. The ultrasound will also allow measurement of the heart muscle to determine if it is too thick (hypertrophic CM) or too thin (dilated CM). Finally, an electrocardiogram (EKG) may be useful to evaluate the rhythm of the heart in cases where the rhythm is abnormal.

What is involved with treatment?

Treatment is based on the type of CM present. Different drugs are used for the two different forms. Therefore, if at all possible, *tests necessary to define the specific form of CM are performed before treatment begins.* Fortunately, many of these cats can be stabilized with the correct drug; however, continual medication may be necessary since the disease cannot usually be cured.

What is the prognosis for cats with cardiomyopathy?

The prognosis for CM is quite variable, depending on the form of the disease and the severity at the time of diagnosis. The survival rate can vary from six months to 10 years when properly treated. However, as with many forms of heart disease, sudden destabilization and death can occur.

In summary, there are several different forms of heart disease found in the cat, including hypertrophic, dilated, and restrictive. Diagnosis of the specific form of heart disease is important in accurate and effective treatment. Even with appropriate treatment, sudden death can occur.