

## **Feline Myocardial Disease**

**Cardiomyopathy (CM)** is the most common cardiac disease seen in cats. This disease can lead to the development of congestive heart failure, which is the major cause of cardiac mortality.

**Echocardiography is the most important diagnostic test for the identification of myocardial disease in cats**

### **Clinical signs**

**Abnormal heart sounds** are the most frequent clinical findings. These include heart murmurs (60% of CM cats), gallop sounds (20%) and muffled heart sounds (5%)

**Dyspnea/Tachypnea** are common clinical signs seen with CM induced CHF. Radiographically recognized as pleural effusion, pulmonary edema or both. Cats with CM that present for simple clinical procedures (e.g., examinations, venipuncture) or stressful events (e.g., car rides, hospitalization) can acutely develop CHF due to catecholamine release causing vasoconstriction and increased cardiac output leading to pressure overload.

**Tachycardia** occurs in one-third of CM. Cats with heart rates over 200 bpm can worsen CM by affecting diastolic dysfunction and reducing coronary blood flow. Electrocardiograms are a relatively insensitive diagnostic test in cats with myocardial disease even though most cats with CM will show some form of arrhythmia on a 24-hour Holter recording. ECG should not be used to diagnosis CM.

**Limb paresis/paralysis** caused by an arterial thromboembolism can occur in 5-10% of the patients with CM.

### **Types of Cardiomyopathy in cats**

**Hypertrophic cardiomyopathy (HCM)** is the most common form and seen in two-thirds of cats with CM

**Restrictive cardiomyopathy**

**Dilated cardiomyopathy**

**Arrhythmogenic right ventricular cardiomyopathy**

**Unclassified cardiomyopathy including left ventricular noncompaction**

It is very important for the clinician to rule out two diseases that may mimic CM in cats, these diseases are **Systemic Hypertension** and **Hyperthyroidism**

*Currently no evidence exists that any drug therapy alters the natural progression of HCM until the patient is in heart failure*

*How should we treat cats that present for CHF induced by cardiomyopathy?*

### **Acute therapy**

Follow the **FONS protocol** as you would for a dog in CHF and use Pleurocentesis when indicated.

**Fons-Furosemide, Oxygen, Nitroglycerine and Sedatives**

### **Chronic Therapy**

In a recent survey of veterinary cardiologists regarding therapy for HCM cats with CHF most treated these patients with **furosemide** and an **ACE inhibitor**.

**What should we do with cats that are diagnosed by echocardiogram with CM but not in heart failure?**

**Have the owner monitor the resting respiratory rate at home. This will be the first clinical parameter to change when a cat is developing CHF. The earlier we diagnosis CHF the better for our patient's longevity and quality of life.**

The entire educational article can be found on the BCVMA website or email me

Thanks

Doug Casey, DVM, DABVP [dougcasey@shaw.ca](mailto:dougcasey@shaw.ca) See my locum add.