

Hypertrophic Cardiomyopathy

Hypertrophic cardiomyopathy (HCM) is one of the most commonly diagnosed heart diseases in cats. This disease causes abnormal thickening of the left ventricular wall. HCM is most prevalent in Ragdolls, Maine Coons, oriental breeds (Himalayan, Burmese, Sphynx, Persians) and Devon Rex, but it is also commonly diagnosed in Domestic Short Hairs. This disease is usually diagnosed in middle-aged to older cats, but can also affect young cats.

There are different forms of this disease which can affect the cat differently. If the thickening is mild and focal, the cat may never have symptoms. However, if the thickening is severe the ventricle will have a hard time filling. When the heart is unable to fill and pump blood efficiently, the pressure within the heart and body increases, causing fluid to leak from the blood vessels. This fluid can accumulate in the chest cavity (pleural effusion) or within the lungs (pulmonary edema). The accumulation of fluid means the cat is in Congestive Heart Failure (CHF) and requires immediate medical attention.

Complications of HCM include arrhythmias and clot formation in the left atrium which can result in FATE. Clots can be pushed out of the left atrium into the left ventricle and out into the aorta. The aorta travels from the heart to the pelvis where it branches to the hind limbs. The clot can lodge at the branch and stop blood flow to one or both hind limbs causing sudden paralysis and extreme pain.

Symptoms

Many cats with mild to moderate HCM have no symptoms. The disease may be discovered when listening to the heart and a murmur and/or arrhythmia is auscultated. Some cats with HCM, especially when disease is mild, do not have a murmur, which is why an echocardiogram may be recommended even if a heart murmur is not detected.

When HCM progresses to CHF the cat will experience an increased breathing rate and/or labored breathing due to fluid in or around the lungs. It is not uncommon to see the symptoms of CHF to be brought on by a stressful event such as anesthesia or IV fluid administration during hospitalization.

Diagnosis

If HCM is suspected a heart ultrasound (echocardiogram or echo) should be performed. This will allow the cardiologist to assess the heart structure and function. Other testing includes chest x-rays to look for fluid in or around the lungs, electrocardiogram (ECG) to look for arrhythmias, blood pressure measurement and blood tests. Hyperthyroidism and high systemic blood pressure can negatively impact the heart and should be assessed and treated if present.

Treatment

No treatment has been proven to change the natural progression of the disease. If the cat is thought to be at increased risk of FATE, anti-coagulants such as clopidogrel (Plavix) can be used to help reduce clot formation.

If the cat is in CHF, medications such as diuretics and ACE inhibitors will be started. It is important to check kidney values before and after starting these medications to ensure the kidneys are functioning properly and can handle the medication appropriately. Another medication increasing heart muscle contraction called pimobendan (Vetmedin) can be considered in selected cases.

Recheck echos, x-rays, ECGs and blood tests will be required to help the cardiologist follow progression of disease and make the appropriate adjustments to the treatment plan.