

## Interpretive Summary

### Diagnosis of Primary Hypertrophic Cardiomyopathy (HCM) in an Asymptomatic Cat

**Case Description:** A 7 year old MN domestic short haired cat presented with coughing and sneezing without nasal discharge. He had a normal weight and temperature. Grade 3/6 systolic ejection murmur PMI sternum with a heart and pulse rate measuring 210 beats per minute. Heart rhythm was regular. Lungs auscultated normally. Upper respiratory infection was treated with oral amoxicillin/clavulanic acid and antihistamine. Sneezing and coughing symptoms were resolved within days. The cat was clinically normal at the time of recheck 21 days later at which time chest films and echocardiogram were performed. Radiographs of the chest revealed normal lungs and enlarged heart with an increased vertebral body score. An echocardiogram was done without sedation utilizing a right short-axis view. This exam revealed a slight increased left atrium (LA) and increased LA:AO ratio. Both the left ventricular free wall and interventricular septum were measured to be increased in diastole. Left ventricular end-diastolic and end-systolic dimensions were normal. Diagnosis of concentric HCM was based on this echocardiogram result. Resting freeT4 by ED was measured to be normal. Resting systolic blood pressure was normal as well.

**Outcome:** Client was instructed to feed a high quality senior diet and observe for symptoms of heart failure such as sudden respiratory distress (dyspnea, tachypnea) or anorexia and lethargy. Advised that sudden death is a possible scenario. Follow-up physical exam and chest film was scheduled three month from diagnosis. The patient remains clinically normal.

**Implications/Applications:** HCM in an asymptomatic cat with significant ventricular wall thickening may very well develop into heart failure. The benefits of therapeutic intervention in asymptomatic cats with diastolic dysfunction is not documented. Some advocate giving asymptomatic cats calcium channel blockers or betablockers with aspirin and taurine although their efficacy has not been documented. It is reasonable to treat with a calcium channel blocker or beta blocker for 2-3 months and recheck for echocardiographic evidence of reduced LA size. Prior to beginning therapy a full chemistry panel and cbc should be performed.

#### References:

Kienle RD. Feline Cardiomyopathy. In: Tilley LP, Goodwin J, eds. *Manual of Canine and Feline Cardiology 3<sup>rd</sup> ed.* Philadelphia: WB Saunders, 2001: 159-173.

Kienle RD, Thomas WP. Echocardiography. In: *Veterinary Diagnostic Ultrasound.* Philadelphia: WB Saunders, 1995:198-202.