



PATIENT

Marcus Cutler

SPECIES

Feline

BREED

Sphynx

SEX

Male Neutered

AGE

7 years

WEIGHT

10lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging WI

REFERRING VET

Dr. Brown

INVOICE

24004

DATE

5/3/22

PRESENTING CLINICAL SIGNS

History: Suspect HCM. History of vomiting thick clear phlegm and raspy meow with light cough. Not eating or drinking. Brought to ER on 3/13/22 for open mouth breathing and vomiting. Started on clavamox for potential URI and started on pimobendan for heart disease. No heart murmur noted.

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental cardiac information only. Cardiomegaly. No obvious evidence of CHF.

ELECTROCARDIOGRAPHIC FINDINGS *Note: Single lead ECGs are evaluated as a rhythm strip. Morphology/MEA cannot be definitively commented on.

A single lead ECG is available; 25mm/s, 10mm/mV. The average heart rate is 200bpm with a largely regular rhythm. P waves are difficult to identify throughout; however, a sinus origin is suspected. P for every QRS complex and vice versa. The P and QRS morphologies are positive. Two isolated VPCs are noted; monomorphic, singles only. No supraventricular premature beats, pauses or other dysrhythmias observed.

ECG diagnosis: Normal sinus tachycardia with isolated VPCs.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is irregular with mild overall hypertrophy. There is a mildly hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly hypertrophied as well. The endocardium also appears remodeled. The left atrium is moderate to severely dilated and bulbous in appearance. No obvious smoke. The right atrium is normal in dimension. The right ventricle appears normal. The mitral valve is mildly thickened with moderate eccentric MR. Normal MR velocity. No obvious TR. Blood flow through the RVOT and LVOT is normal in velocity. No pleural or pericardial effusion seen. No obvious cardiac tumors.

CARDIAC CHART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) <small>(Moise, Pipers)</small>	LVIDd (cm) <small>(Moise, Pipers)</small>	LWVd (cm) <small>(Moise, Pipers)</small>	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	4.5	200	0.61	1.42	0.69	58	90
FELINE CARDIAC PARAMETERS	LA/AO <small>(Boon)</small>	LA/AO HEART BASE (Swe) <small>(Abbott)</small>	LA 2D short axis Base view (cm) <small>(Abbott)</small>	LVOT VEL <small>(m/s)</small>	RVOT VEL <small>(m/s)</small>	E max <small>(m/s)</small>	
NORMAL	<1.5	<1.3	<1.2	<1.6	<1.3	<0.9	
PATIENT	1.9	1.9	1.9	1.0	1.2	NM	
<p><i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i> Adapted from June Boon, Veterinary Echocardiography, 1998 Abbott J & MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.</p>							

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The finding of a mildly hypertrophied left ventricular is most consistent with hypertrophic cardiomyopathy. There is also significant eccentric mitral regurgitation, which may reflect a primary valvular issue as well. This likely explains a mismatch between mild LV thickening and significant LA dilation. Regardless of academic diagnosis, the LA is severely dilated, indicating there is risk for congestive failure going forward. Serial echocardiography will be necessary to determine progression.

The ECG does show isolated VPCs. These are not surprising given a stressed patient in hospital with significant structural disease. No treatment is indicated based upon what is seen here, in an overall asymptomatic patient; however, close follow-up is advised, particularly should any lethargy or syncope be noted in the future.

Even without reported symptoms, full cardiac support is recommended in this case as below given the high risk for acute decompensation. Close monitoring for any clinical signs at home is advised.

Unfortunately, the mean survival time for cats with CHF is 8-12 months, however most are able to maintain a good quality of life on medications. Patient will always remain at high risk for recurrent episodes of CHF, development of blood clots, and/or sudden death in the future. Monitoring of sleeping breathing rates at home is recommended as the best way to screen for recurrent CHF at home.

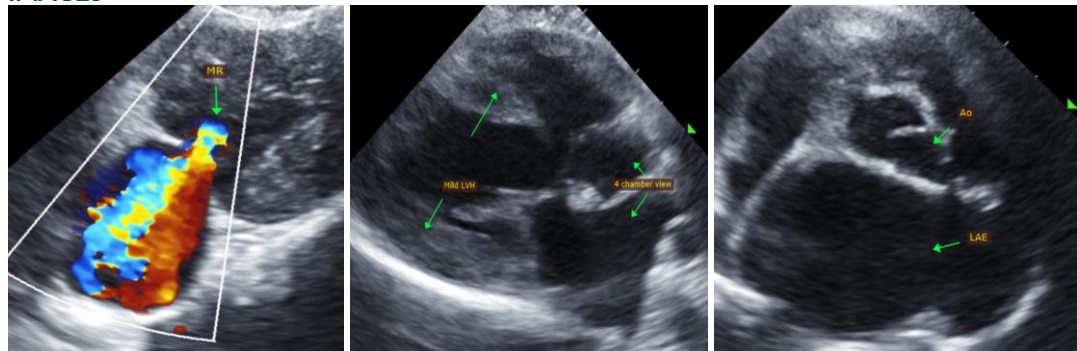
Elective anesthesia, fluid or steroid therapy is not advised.

PLAN

Baseline BP is strongly recommended. Administer low dose Lasix 1mg/kg PO q12h. Administer blood thinner Clopidogrel (Plavix) 75mg tablets; give ¼ tab orally once daily (NOTE: this medication is very bitter on the cut edges; coat in entirety). Administer Pimobendan 1.25mg PO q12h.

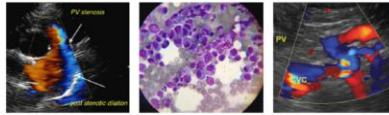
Recheck renal values and BP in 10-14 days if able. If eating well and BP >130mmHg at recheck exam, institute benazepril or enalapril 0.5mg/kg PO q12h.

A recheck echocardiogram is recommended in 6 months to assess progression.

IMAGES

IMAGING PERFORMED BY

svsmobileimaging.com 309-737-3070



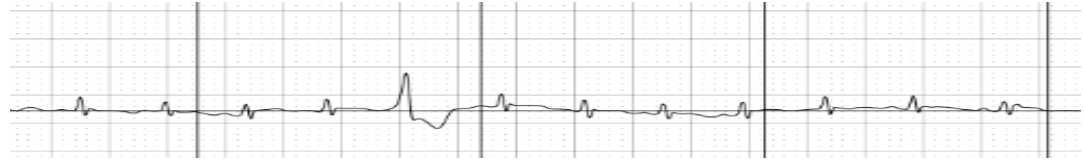
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

Maggie Machen Lamy, DVM
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info@sonopath.com