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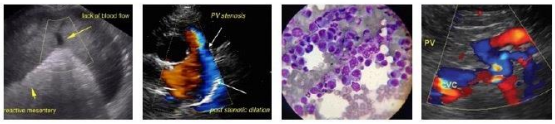


THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT
Kylo Baker

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
4 years

WEIGHT
13.2lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Kelly Reschny, RVT

HOSPITAL NAME
Beattie Pet Hospital Stoney Creek

REFERRING VET
Dr. Mellish

INVOICE
23072

DATE
3/14/22

PRESENTING CLINICAL SIGNS

History: Previous history of 3/6 heart murmur, was difficult to evaluate on most recent physical exam/not appreciated. Recently had upper respiratory infection (sneezing) but no classic signs concerning for CHF, clinically doing well. A few days ago, had what sounds like a syncopal episode
-Abnormal PE/Chem/CBC/UA Results: Cardiac ProBNP elevation (>1500) HR 180 RR 24.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is severely thickened. Obliteration of the LV chamber. Adequate myocardial function. There is a diffusely hyperechoic endocardium consistent with fibrosis and ventricular remodeling. Papillary muscle hypertrophy. The right ventricle appears normal. There is marked left atrial enlargement present with a horizontal component. No obvious smoke. No right atrial enlargement present. There is systolic anterior motion (SAM) of the mitral valve present creating a mild LVOT on color flow and 2D (suspect underestimation). There is moderate eccentric mitral regurgitation present secondary to SAM. The anterior mitral valve leaflet appears thickened and elongated. No AI or PI. No pericardial or pleural effusion noted. No obvious cardiac tumors. Marked tachycardia throughout the study.

CARDIAC CHART

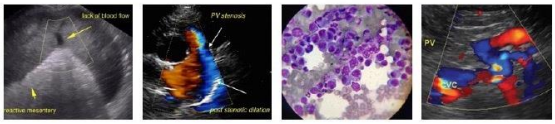
FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LVWd (cm) (Moise, Pipers)	FS (%)	EF (%)
NORMAL PARAMETER	------	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	6.0	280	0.92	1.2	0.93	38	72
FELINE CARDIAC PARAMETERS	**LA/AO** (Boon)	**LA/AO HEART BASE (Swe)** (Abbott)	**LA** 2D short axis Base view (cm) (Abbott)		**LVOT VEL** (m/s)	**RVOT VEL** (m/s)	**E max** (m/s)
NORMAL	<1.5	<1.3	<1.2		<1.6	<1.3	<0.9
PATIENT	2.5	2.3	2.2		2.5	1.7	NM

**Note: All measurements based upon multi-modal images and methods. An average value is reported.*
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.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The diagnosis is likely hypertrophic obstructive cardiomyopathy (HOCM). This indicates LV thickening (severe in this case) with a dynamic LVOT obstruction (SAM). The mitral valve appears thickened which may reflect a primary dysplastic component in a relatively young cat. Regardless, there is a significant obstruction and severe left atrial dilation, indicating the risk of spontaneous CHF and/or a thrombotic event is and will be elevated lifelong. A marked tachycardia is noted throughout the study and a baseline ECG should be done ASAP. No additional issues are identified.

Given recent syncope and severity of disease seen here, there is great concern for imminent congestive heart failure and full lifelong cardiac support is recommended as



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below. If the patient appears unstable, immediate referral for an ECG and urgent care should be considered. If able to be stabilized and medicated, the prognosis is poor for cats with CHF long term, however most are able to be managed for an average of 6-12 months on medications if tolerated.

Lifelong treatment is indicated as below. Atenolol is likely indicated in this patient as well to lower heart rate and decrease LVOT obstruction, however I would stagger initiation as below. Initiating a beta blocker in the face of active CHF can lead to worsening clinical signs. A screening blood pressure is also recommended prior to medicating.

Monitor at home for any respiratory signs or sign of blood clot events (neurologic change, paralysis, etc.).

PLAN

Consider referral for hospitalization and ECG ASAP. If declined, institute diuretic furosemide/Lasix, 1-2mg/kg PO q8h for three days, then if doing well decrease to q12h. Institute 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).

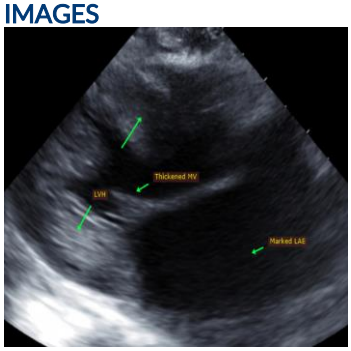
Monitor PE, BP, renal panel in 10-14 days. If doing well, eating and BP >130mmHg, institute Benazepril and Atenolol at that time. If BP <130mmHg, do not institute ACEI. Dosages: Benazepril 0.5mg/kg PO q12 hours. Titrating dose of atenolol: 25mg tablets; Give ¼ tab once daily. If BP <130mmHg, do not utilize Benazepril.

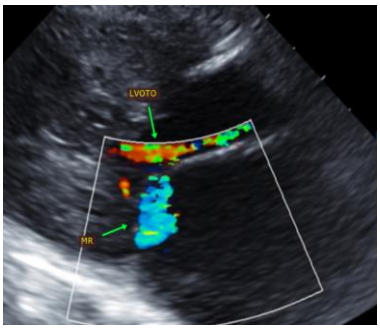
Recheck heart rate in 1-2 weeks with target stressed rate of 140-160bpm 12-24 hours post-administration. Increase as needed until target reached.

*Note: If the patient is difficult to medicate, 4 medications can be overwhelming. Lasix, atenolol and Plavix are considered most important in this case for immediate benefit.

Recommend recheck echocardiogram in 6 months to assess for progression, sooner if clinical issues arise.

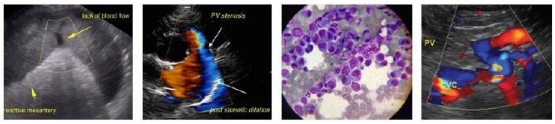
IMAGES





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. This report was generated using transcription software, and minor



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dictation errors may be present. 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
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com