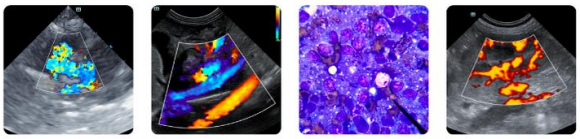

SonoPath FOSTERING THE ART OF VETERINARY MEDICINE™ www.thefocalzone.com info@thefocalzone.com 298.808.2608

PATIENT

Pepper Millard

SPECIES

Feline

BREED

Ragdoll

SEX

Female Spayed

AGE

3 years

WEIGHT

12lbs

INTERPRETED BY

Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY

Kelly Reschny, RVT

HOSPITAL NAME

Hamilton Regional Veterinary Emergency Clinic

REFERRING VET

Dr. Pak

INVOICE

46175

DATE

12/12/25

PRESENTING CLINICAL SIGNS

History: Acute increase in respiratory effort last night. Hypertensive: 150mmHg x 5.
-Current medications: Butorphanol 0.3mg/kg IM; Furosemide 2mg/kg IV.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at 25mm/s; 10mm/mV. The average heart rate is 150bpm with a regular rhythm. P waves are difficult to identify; however, a sinus origin is suspected. The QRS morphology is wide. MEA is normal. No ectopic beats, pauses or dysrhythmias observed.
ECG diagnosis: Suspect normal sinus rhythm with a left bundle branch block.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is moderately hypertrophied; however, not extensively visualized. The LV chamber is decreased. Adequate myocardial function. There is a mildly hyperechoic endocardium consistent with fibrosis and ventricular remodeling. Mild papillary muscle hypertrophy. The right ventricle appears subjectively normal. There is moderate left atrial enlargement present. No obvious smoke. No right atrial enlargement present. Normal RVOT velocity. Systolic anterior motion (SAM) of the mitral valve is identified on color flow and 2D imaging, making spectral doppler likely inaccurate. Mild MR. No TR. No other obvious valvular regurgitation is seen. Scant pericardial and pleural effusion seen in some views. No tumors are seen.

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	5.4	110	0.70	0.8	0.72	55	90
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	NM	1.8	1.6		1.8	0.8	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 likely diagnosis is hypertrophic obstructive cardiomyopathy (HOCM). This indicates LV thickening (mild to moderate in this case) with a dynamic LVOT obstruction (SAM) and secondary MR. Mitral valve dysplasia would be an alternative explanation given the age of the patient; however, the valve is not well visualized. Regardless, there is moderate left atrial dilation present, which typically confers risk for complication (spontaneous CHF and/or a thrombotic event). Some degree of pseudohypertrophy is suspected as the LV chamber is decreased and lab work should be assessed. No additional issues are identified and the ECG appears largely normal. The QRS morphology is prolonged, likely consistent with a left bundle branch block, which is benign.

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Given these findings, a diagnosis of congestive heart failure may be supported, assuming the patient has responded positivity to diuretic therapy and the CXR were suggestive. It is worth mentioning that organic CHF is somewhat uncommon with this degree of disease and if response to therapy is incomplete, reevaluation should be considered. Regardless, if the patient is doing well at this time, continuing full cardiac support is recommended going forward. While Atenolol is often indicated with an LVOT obstruction, I would not utilize at this time based upon these findings, presumably active CHF and a minimal obstruction. Close monitoring is advised for improvement Given the unusual nature of this case, if the symptoms do not improve with standard CHF therapy reassessing the chest radiographs and/or referral to a local Cardiologist is highly recommended. in symptoms. Given the unusual nature of this case, if the symptoms do not improve with standard CHF therapy reassessing the chest radiographs and/or referral to a local Cardiologist is highly recommended.

Monitor at home for any respiratory signs or sign of blood clot events (neurologic change, paralysis, etc.). Long term prognosis is guarded to poor once CHF develops with an average survival time of <1 year. Most cats are able to maintain a good quality of life on medications. Patient will always be at risk for recurrent CHF, development of blood clots and/or malignant arrhythmias/sudden death in the future.

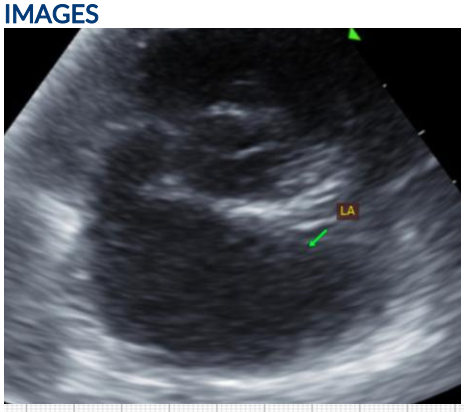
PLAN

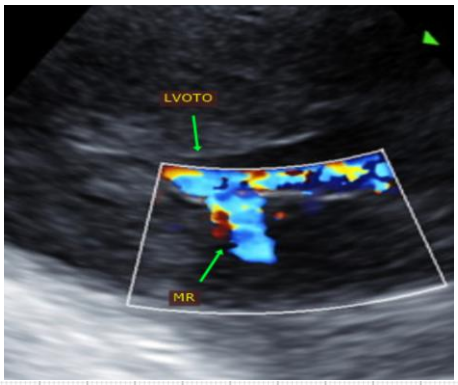
Screening blood pressure and T4 are recommended. Continue Lasix 1-2mg/kg PO q12h. Institute Plavix (Clopidogrel) 18.75mg PO q24 hours lifelong (bitter on cut edge).

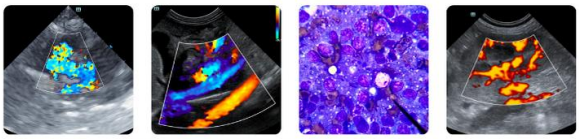
Recheck blood work, BP and clinical status in 1-2 weeks. If not improved significantly, repeat chest radiographs with a Radiologist review is recommended. If BP >130mmHg and patient is doing well, institute ACE-I 0.5mg/kg PO q12h.

Recheck echocardiogram in 6 months to screen for progression and need for atenolol therapy, sooner if clinical signs arise in the interim.

IMAGES







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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. This report was generated using transcription software, and minor 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