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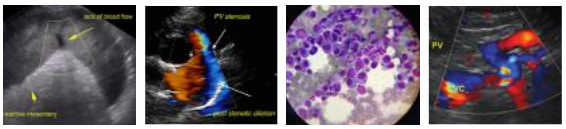


ANIMAL SOUNDS NW
MOBILE VETERINARY ULTRASOUND
IMAGING PERFORMED BY
AnimalSoundsNW.com 541-357-9423

PATIENT
Cooper Bramble

SPECIES
Feline

BREED
DLH

SEX
Male Neutered

AGE
12 years

WEIGHT
7.38lbs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Jenna Walsh, CVT

HOSPITAL NAME
Orchard View Veterinary Center

REFERRING VET
Dr. Rowland

INVOICE
30300

DATE
4/18/23

PRESENTING CLINICAL SIGNS
History: Muffled heart sounds, respiratory distress, open mouth breathing, increased respiratory rate and effort. Started on Lasix and fluid has decreased.

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental cardiac information only.
Cardiomegaly with pleural effusion, concerning for 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; 50mm/s, 20mm/mV. The average heart rate is 200bpm with a largely regular rhythm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P and QRS morphologies are positive. A single APC is identified. No ventricular premature beats, pauses or other dysrhythmias observed.
ECG diagnosis: Normal sinus tachycardia with a single APC.

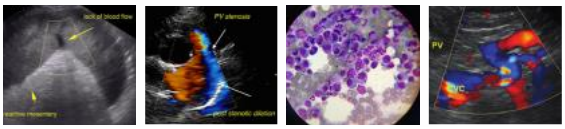
ECHOCARDIOGRAM FINDINGS
2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is borderline in dimension with regions of mild hypertrophy. There is a mildly hyperechoic endocardium consistent with fibrosis. The papillary muscles are remodeled. Systolic function is adequate. The left atrium is severely dilated and bulbous in appearance. No obvious smoke. Mild to moderate central mitral regurgitation. Mild tricuspid regurgitation. Velocity consistent with early pulmonary hypertension. The right atrium is normal with no obvious smoke. The right ventricle appears normal. Blood flow through the RVOT and LVOT is normal in velocity. No pericardial or pleural effusion. No cardiac tumors 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	3.3	175	0.56	1.4	0.59	53	87
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	2.3	2.4	1.9		1.0	0.9	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 finding of severe left atrial dilation in the face of borderline LV wall thickness and adequate systolic function is most consistent with unclassified cardiomyopathy (UCM); however, some prior infectious or inflammatory insult to the myocardium cannot be definitively ruled out. There is mild MR and TR, which are likely secondary to annular stretch. The right heart appears normal; however, mild pulmonary hypertension is noted. This is most likely secondary to chronic LA



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pressure elevation. No obvious effusions are seen at this time and the ECG is unremarkable with a normal sinus tachycardia.

Regardless of categorical classification, the patient has progressed to congestive heart failure (CHF) as evidenced by previous chest radiographs and clinical signs. It does appear there has been a positive response to Lasix therapy, which should certainly be continued going forward. If the patient is doing well, hospitalization is likely unnecessary; however, any reported tachypnea should be reassessed. Continued lifelong cardiac support and anti-coagulation is recommended as below, including off-label use of Pimobendan.

A single APCs is seen on an otherwise normal ECG tracing. This is no doubt secondary to severe disease in a stressed patient in crisis. No treatment is indicated at this time.

Given the severity of the findings, there will always remain risk for recurrent CHF, development of additional blood clots, and/or malignant arrhythmias/sudden death in the future. Monitoring of sleeping breathing rates at home is recommended as the best way to screen for recurrent/impending CHF at home.

Elective anesthesia, fluid therapy and/or steroids should be avoided lifelong.

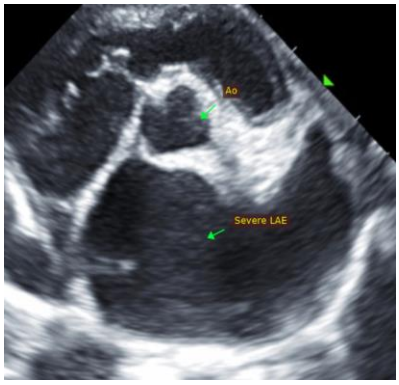
PLAN

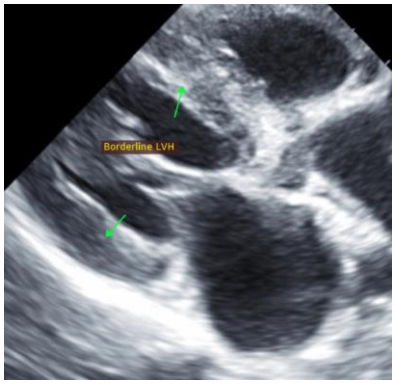
Continue Lasix 1-2mg/kg PO q12h. Oral medications: Institute Plavix 18.75mg PO SID (NOTE: this medication is very bitter and may causing foaming at the mouth- coat in entirety). Continue Lasix to 1-2mg/kg PO q12h. Institute Pimobendan at 1.25mg PO q12h. If any persistent tachypnea is noted, reassess and/or hospitalize.

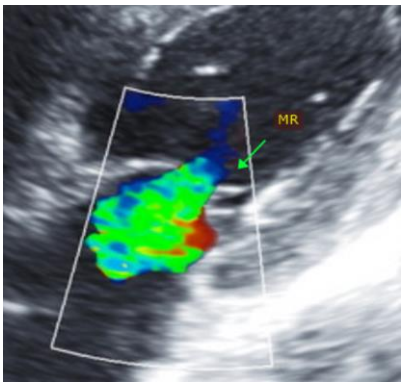
Recheck renal values and BP every 3-4 months lifelong. Once deemed normotensive and doing well at home, consider addition of an ACEI 0.5mg/kg PO q12h. Monitor at home for any progressive labored breathing and/or signs of clot recurrence (limb paralysis, neurologic changes, etc.).

Recheck echocardiogram and ECG in 6 months once stable on oral medications to reassess for progression.

IMAGES







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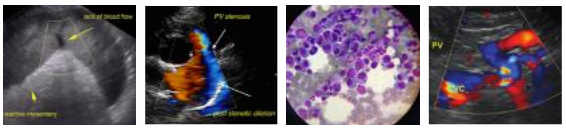

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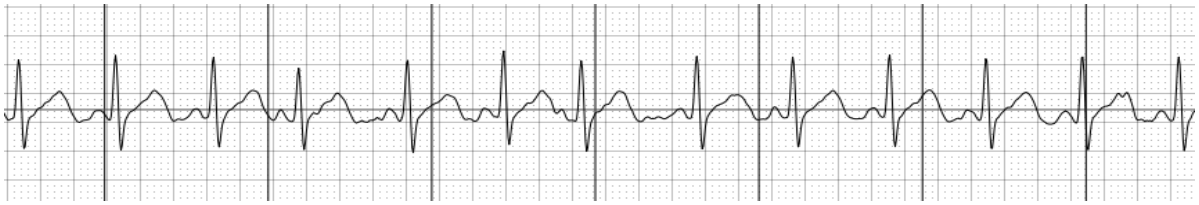

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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