


PATIENT

Machi Lee

SPECIES

Canine

BREED

Maltese

SEX

Female Spayed

AGE

14 years

WEIGHT

8.7lbs

INTERPRETED BY

 Maggie Machen Lamy,
 DVM DACVIM
 (Cardiology)

IMAGING PERFORMED BY

Crystal Hill, RVT

HOSPITAL NAME

 East Credit Veterinary
 Hospital

REFERRING VET

Dr. Webster

INVOICE

31707

DATE

7/6/23

PRESENTING CLINICAL SIGNS

History: Recheck echo. Previous history of collapse/syncope in 2020 and Dec 22. April 2023 several episodes of collapse/bleeding from mouth (severe dental disease) PCV 26-27%.

Clopidogrel stopped in preparation for dental. Dental with multiple extractions done May 3, 23. June 28/23 presented for suspected seizure. Two episodes of syncope with vocalizing lasting about 10-20 seconds. Rapid breathing, tachycardia on PE, murmur unchanged. Mildly wobbly hind end gait. BP: 139.7mmHg, neuro referral declined, start Keppra and Gabapentin and restart Clopidogrel. July 4, two more episodes of syncope with increased RR and owner reports coughing.

-Current medications: Vetmedin 1.25mg BID, Levetiracetam 125mg TID, Gabapentin 25mg, Vitamin B12 injection monthly, Cytopoint 10mg June 16, Prednisolone 1.25mg UID, Clopidogrel 18.75mg UID.

-Pertinent previous echo findings (2020 MML): Severe MR, trace TR, noncardiogenic ascites. CVD B2.

-Pertinent previous echo findings (12/2022 MD): CVD B2.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve is diffusely thickened with mild prolapse into the left atrial lumen. There is severe eccentric mitral regurgitation present. The MR velocity is low normal. There is severe left atrial enlargement. There is mild left ventricular dilation. Left ventricular systolic function is low normal for this breed. There is normal systolic flow velocity across the aortic valve. The aortic valve appears trileaflet with normal mobility. Normal LVOT velocity, no AI. The main pulmonary artery is mildly dilated. Normal pulmonic outflow velocity with laminar profile. No pulmonic insufficiency. Minimal right atrial or right ventricular dilation. The tricuspid valve is normal with no tricuspid regurgitation. No pericardial effusion. No pleural effusion. Ascites noted on subcostal views. No cardiac masses are seen.

CARDIAC CHART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	4.5	NA	2.3	2.1	55	87	0.5
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	LVIDd Avg; 2D and m-mode short axis (cm)	LVIDs Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
PATIENT	160	1.3	1.2	4.0	2.5	3.2	1.4
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
				20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)
				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)

 Adapted from June Boon, Veterinary Echocardiography, 1998
 Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435



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Hansson et al, Vet Rad and Ultrasound 2002	35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995	40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
	50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Compared to the prior study, findings are remarkably similar. Severe mitral regurgitation is similar to previous with stable left heart dimensions. The right heart remains largely unremarkable without obvious pulmonary hypertension.

This patient has a complex history with multiple issues at play. Rapid labored breathing is unlikely to cardiogenic in origin. That being said, CXR are strongly recommended. Additionally, syncope is of unknown origin in a patient with this many issues. CHF should again be ruled out through CXR. Continue Pimobendan as previously recommended.

Prognosis remains guarded long-term; however, this patient has done relatively well given the chronicity of the issues. Going forward, patient will remain at high risk for left-sided CHF, collapse episodes and/or development of malignant arrhythmias or sudden death in the future.

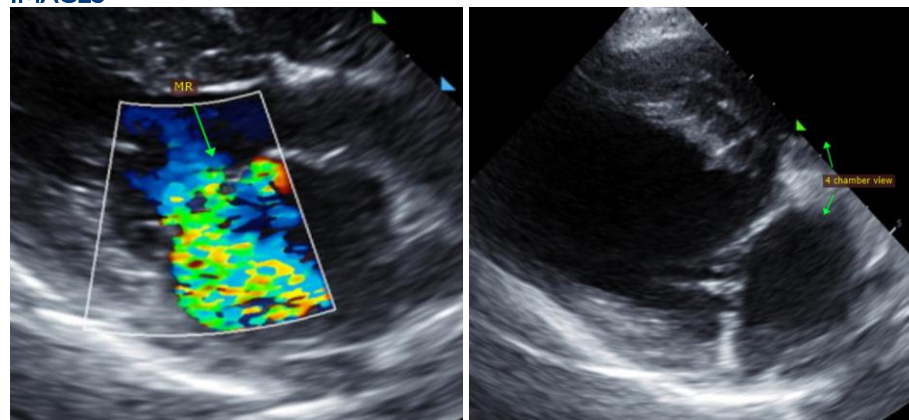
Omega fatty acid supplementation and mild salt restriction may also be of some long-term benefit once stabilized. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes. Monitoring of sleeping breathing rates is recommended as the best way to screen for improvement/recurrent CHF at home.

PLAN

Full evaluation as discussed, including baseline CXR to rule out CHF. Continue Pimobendan 0.3mg/kg Po q12h.

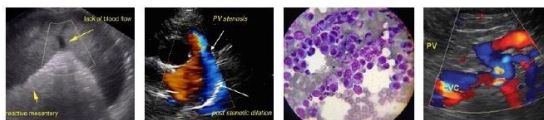
A recheck echocardiogram is recommended in 6 months to screen for progression, sooner if clinical signs arise in the interim.

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.

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Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com

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