



PATIENT

Reagan Leichtman

SPECIES

Canine

BREED

Mix

SEX

Female Spayed

AGE

12.1.10

WEIGHT

58lbs

PRESENTING CLINICAL SIGNS

History: Seen at CVCA in 2017 and diagnosed with advanced dilated cardiomyopathy. Has mass on hind leg that needs surgical intervention. Assess prior to anesthesia. Dog has done well over the last several years on her heart meds. Hx of 3/6 cardiac murmur. HR ~140.

-Abnormal lab results: BUN: 58, Creat: 1.4.

-Current medications: Vetmedin 10mg 1/2 PO bid, Furosemide 40 mg 1 PO bid, Enacard 10 mg PO bid, Spironolactone 25mg PO bid, Taurine.

-Sedation used: Not required to complete full diagnostic ultrasound.

-Pertinent previous ultrasound results (2017 CVCA): LVIDd: 5.4, LVIDs: 4.6, FS: 16%, LA: 3.4, LA/AO: 1.7.

-STAT: Not requested

-Imaging performed by: Andi Parkinson, BS, RDMS.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild diffuse thickening of mitral valve leaflets with no obvious prolapse into the left atrial lumen. Trivial mitral regurgitation is identified. Normal left atrial dimension. Normal LV diameter with adequate myocardial function. The tricuspid valve appears subjectively normal, with trivial tricuspid regurgitation. The right heart is normal (subjective). No overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. No aortic abnormalities identified, however the LVOT velocity is mildly elevated. Normal pulmonic outflow velocities. No aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No cardiac tumors observed.

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

HOSPITAL NAME

Healing Paws
Veterinary Wellness
Center

REFERRING VET

Dr. Levitsky

INVOICE

25332

DATE

7.14.22

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	NA	NA	NM	1.2	29	57	NM
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	NM	2.2	1.4	26.3	2.4	3.2	2.3
*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							
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
				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)
				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
				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)

Adapted from June Boon, Veterinary Echocardiography, 1998
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435
Hansson et al, Vet Rad and Ultrasound 2002
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The only cause of a murmur identified is a mildly elevated aortic outflow velocity. No obvious subaortic ridge or valvular abnormalities are visualized, and in the absence of structural abnormalities this is considered a benign flow murmur. Interestingly previously significant MR and TR are trivial and unlikely to be heard on exam. Additionally, the left heart dimensions have normalized. To the contrary, the LV appears mildly volume contracted with mild LV thickening. This is suspected to reflect pseudohypertrophy given mild azotemia (likely due to Lasix therapy); however, a baseline blood pressure is strongly recommended as a possible contributing factor. Finally, and most unexpectedly the systolic function has normalized with no persistent LA or LV enlargement. No additional issues are identified.

These findings are highly unexpected, given both the timeframe and severity of disease noted on the prior report. This may reflect a diet-related issue, given that Taurine was supplemented. Regardless, what is seen here poses little clinical risk and discontinuing Lasix, Enalapril and Spironolactone is recommended (one at a time ensuring no clinical changes are noted at home). Reasonable to continue Pimobendan for the short-term; however, if a serial study in 6 months shows no progression, this can also be discontinued. Certainly, taurine should be continued life-long.

Prognosis is open based upon these findings. If the patient has any recurrent clinical issues in the future it may be worth reassessing at CVCA for a direct comparison of the prior 2017 study given the atypical nature of the findings.

Based upon what is seen here there is no cardiac contraindication for general anesthesia. Recommend a blood pressure as well as discontinuing the medications prior to proceeding.

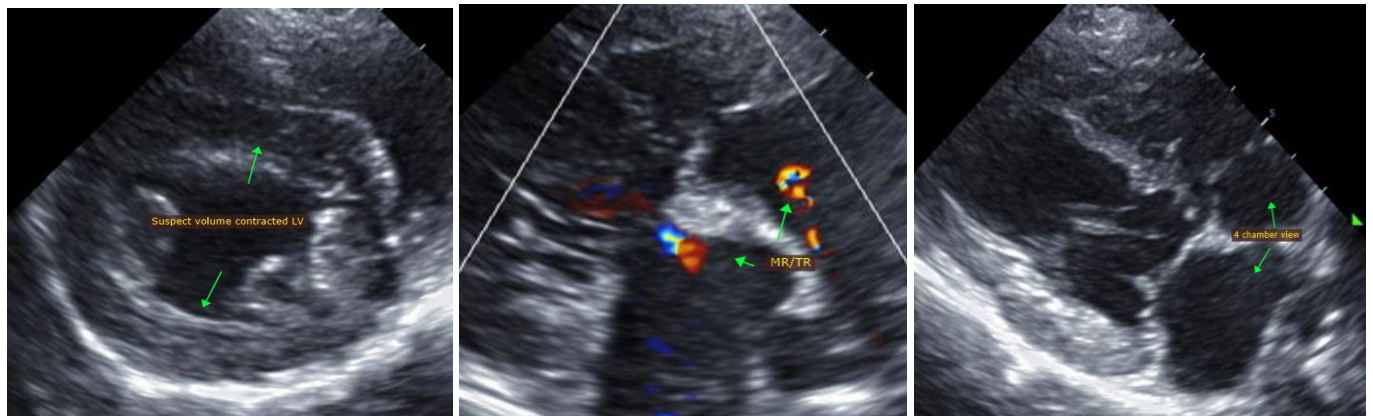
Monitor for any development of cough, labored breathing or exercise intolerance.

PLAN

Baseline BP recommended. Assuming the BP value is normal (<160mmHg stressed), consider wean and discontinue Lasix, Enalapril and Spironolactone as discussed. Proceed 1 at a time, leaving at least 3-5 days between each medication change. Continue Pimobendan and Taurine for now.

Recommend recheck echocardiogram in 6 months, sooner if any 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 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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