



PATIENT

Merlin Preston

SPECIES

Canine

BREED

Cheltie

SEX

Male Neutered

AGE

5.29.13

WEIGHT

26.4lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

HOSPITAL NAME

Healing Paws
Veterinary Wellness
Center

REFERRING VET

Dr. Preston

INVOICE

24337

DATE

5.23.22

PRESENTING CLINICAL SIGNS

History: History of severe degenerative valve disease. Grade 5/6 murmur. Has been overall doing well at home, cough better.

-Pertinent abnormal PE/Chem/CBC/UA Results: ALT 119 (112-118), rest = NSF.

-Current medications: Benazepril 5mg tabs - 1 q 12h, Spironolactone 25mg tabs - 1/2 q 12h

-Furosemide 20mg tabs - 1 q 12h, Pimobendan 5mg tabs - 1/2 q 12h, Tramadol 50mg tabs - 1 q 12h for cough, 10 mg Coenzyme Q SID, and Fish Oil.

-Blood pressure: Blood Pressure = 124, 126, #4 cuff on RH foot.

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

-Pertinent previous ultrasound results (11/2021 MML): Moderate MR, moderate LAE, no LVE, no TR.

LA: 2.4, LV: 3.4.

-STAT: Not requested.

-Imaging performed by: Stephanie Pearce RDCS, RVT.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets (anterior > posterior) with minimal prolapse into the left atrial lumen. Severe eccentric mitral regurgitation with severe left atrial dilation. Normal MR velocity. Moderate LV dilation with hyperdynamic myocardial function. The tricuspid valve appears mildly thickened with trace tricuspid regurgitation. Velocity consistent with early pulmonary hypertension. Mild right heart enlargement. The pulmonic valve is normal in morphology and mobility. Aortic valve is normal with normal mobility. Normal pulmonic and aortic outflow velocities (variable with HR). No pulmonic and trace aortic insufficiency. No pericardial or pleural effusion noted. No cardiac tumors observed.

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	5.9	3.0	NM	2.5	48	80	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	150	1.8	1.5	12.0	3.0	4.1	2.1
*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)
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>				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

Chronic degenerative valve disease persists with evidence of progression. The left heart dimensions have gone from moderate to severe with increasing MR quantity. Tricuspid regurgitation is noted with evidence of mild pulmonary hypertension. Finally, the small aortic leak is unchanged and reported blood pressure reasonable.

Given these findings, continue all medications as prescribed. No obvious indication for changes without any clinical issues; however, close monitoring at home is advised.

Prognosis remains guarded to poor; however, it is encouraging that this patient continues to do well.

Patient will always be at risk for progression to CHF, development of arrhythmias/LA tear, syncope and/or sudden death in the future.

Omega fatty acid supplementation and mild salt restriction may also be of some long-term benefit. Monitor for development of a worsening cough, labored breathing, exercise intolerance or collapse episodes.

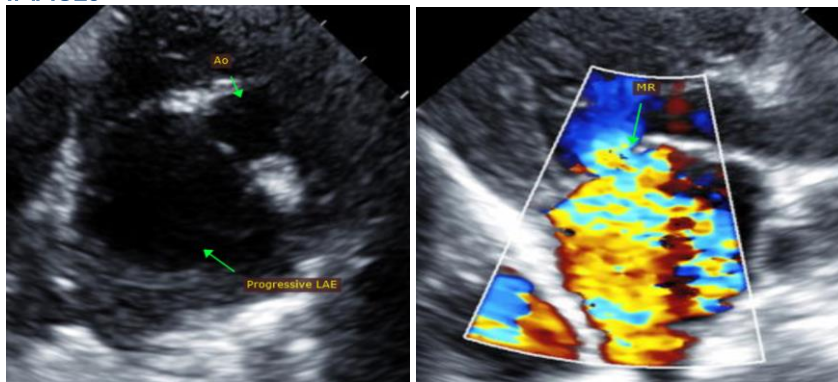
PLAN

Continue all medications as prescribed. Close monitoring of breathing rates as discussed.

A renal panel and BP are recommended every 3-4 months lifelong.

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