



PATIENT

Zeke Rhodes

SPECIES

Canine

BREED

Papillon

SEX

Male Neutered

AGE

10.10.09

WEIGHT

11.2lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

HOSPITAL NAME

Taylorsville Veterinary
Clinic

REFERRING VET

Dr. Bray

INVOICE

26371

DATE

9.14.22

PRESENTING CLINICAL SIGNS

History: Recheck echo. Grade 4/6 left apical systolic murmur.

-Pertinent abnormal PE/Chem/CBC/UA Results: CBC: WNL. Chem: Mild creatinine increase (rest of renal values normal), pre-renal vs renal, Mild hypochloremia, chronic and likely related to meds
Anion gap slightly increased and likely related to meds, Mild increases in ALP and ALT, liver disease vs non-hepatic disease/meds, Slight increase in Lipase, pancreatitis disease vs intestinal disease, p did have some GI upset recently with diarrhea, Mild CK increase likely related to hemolysis and blood draw technique. UA: Adequately concentrated, would like more dilute since we are trying to prevent CaOx uroliths, Mild hematuria likely related to cysto, Mild proteinuria, UPC 0.1 WNL, TT4: WNL
-Current medications: Hydrochlorothiazide 12.5mg (1 tab PO SID), Alprazolam 0.25mg (1 tab PO q12h), Vetmedin Chewable tabs 2.5mg (1/2 tab PO q12h), Hydrocodone tabs 5 mg, 1/4-1/2 tab as often as 6 hours.

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

-Pertinent previous ultrasound results (5/11/22 MML): Moderate MR, borderline moderate LAE, no LVE, trace TR. LA: 2.0, LV: 2.7.

-STAT: Not requested.

-Imaging performed by: Stephanie Warga RDCS, RVT.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild diffuse thickening of mitral valve leaflets with significant prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation with borderline moderate left atrial dilation. Elevated MR velocity. Normal LV diameter with adequate myocardial function. The tricuspid valve appears normal with trace tricuspid regurgitation. Normal right atrial and ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. No obvious aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

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	6.3	NM	NM	1.65	55	87	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	156	1.6	1.0	5.1	2.0	2.6	1.2
*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 stability. Moderate mitral and mild tricuspid regurgitation are unchanged, without progressive left heart enlargement. Persistently moderate left atrial enlargement indicates there is relatively low risk for imminent complication, however risk for progression to spontaneous congestive heart failure in the future is elevated. No additional issues are identified.

Reasonable to continue Pimobendan lifelong as prescribed with no obvious indication for additional medications. Continued assessment of progression is recommended, with a guarded prognosis (stage B2). Patient may be at risk for development of CHF, arrhythmias, and/or sudden death going forward.

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

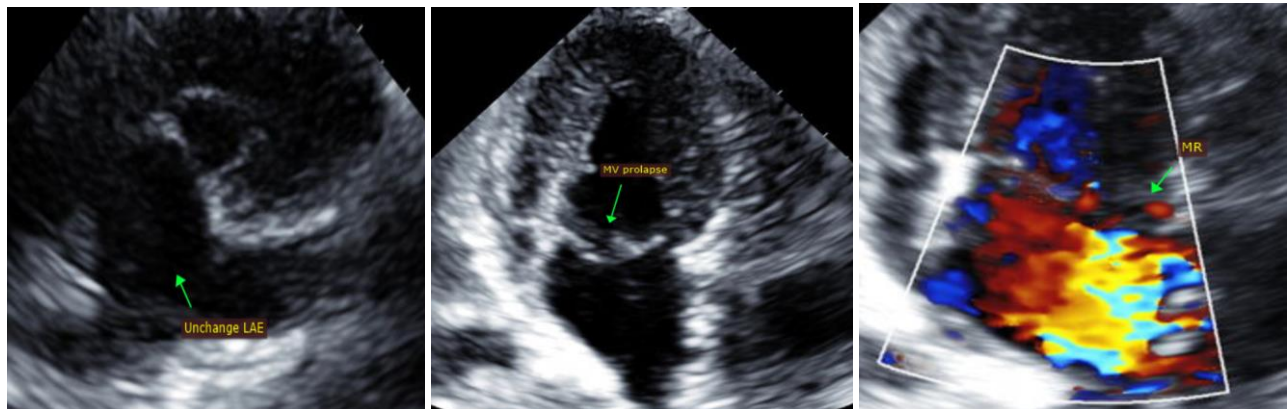
Anesthetic risk remains mildly elevated. Cardiac protective drug choices (opioid/benzodiazepine premedication, Propofol or alfaxalone induction, iso or sevo gas) are recommended. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Judicious IV fluid rates are recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

PLAN

Baseline BP recommended every 6 months. Continue Pimobendan 0.25-0.3mg/kg PO q12h.

Recommend monitor for progression with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

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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