



PATIENT

Louie Kosinski

SPECIES

Canine

BREED

Chihuahua

SEX

Male Neutered

AGE

10.5.12

WEIGHT

16lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

HOSPITAL NAME

Perry Hall Animal
Hospital

REFERRING VET

Dr. Miller

INVOICE

28068

DATE

1.3.23

PRESENTING CLINICAL SIGNS

History: Recheck echo. Progressive cough- seen on 12/6/22 with no evidence of cardiac failure. Cardiac heart murmur grade 4/6 PMI mitral.
-Pertinent abnormal PE/Chem/CBC/UA Results: CBC WNL. Chem: ALP 284 (5-160), T4 WNL. Rad report: Mild generalized cardiomegaly likely due to valvular endocardiosis without evidence of heart failure. Dynamic tracheal and mainstream bronchial collapse- this is likely the primary cause of the cough. Transient esophageal distention likely due to aerophagia.
-Current medications: Pimobendan 2.5mg BID.
-Blood pressure: 180 mmHg.
-Sedation used: Not required to complete full diagnostic ultrasound.
-Pertinent previous ultrasound results (4/2022 MML): Moderate MR, moderate LAE, mild LVE, mild TR, mild PAH: 3.2m/s, trace/mild AI. LA: 1.8, LV: 3.4.
-STAT: Declined at this time.
-Imaging performed by: Stephanie Warga RDCS, RVT.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets (anterior>posterior) with mild prolapse into the left atrial lumen. Severe eccentric mitral regurgitation with severe left atrial dilation. Normal MR velocity. Mildly increased LV diameter with hyperdynamic myocardial function. The tricuspid valve appears thickened with septal prolapse and mild tricuspid regurgitation. Velocity consistent with early pulmonary hypertension. Normal right atrial and ventricular diameter. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities. Trace/mild aortic and no pulmonic 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	5.7	3.3	NM	2.2	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	158	1.5	0.95	7.3	2.7	3.5	1.8
*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. Moderate mitral regurgitation has become severe and the left heart dimensions are significantly increased. Mild pulmonary hypertension is largely unchanged, and no additional issues are noted in this study.

Given these findings, consider addition of both an ACE-I and Spironolactone due to high risk of complication. Pimobendan should also be continued life-long. Assessment of progression in the future will help predict long term outcome, however prognosis is guarded at this stage (late B2).

While mainstem bronchi compression may certainly be contributing to a chronic increase in coughing, other primary airway contributions should also be considered (tracheal collapse, COPD/chronic bronchitis, etc.). Consider hydrocodone for any mechanical component due to cardiomegaly.

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.

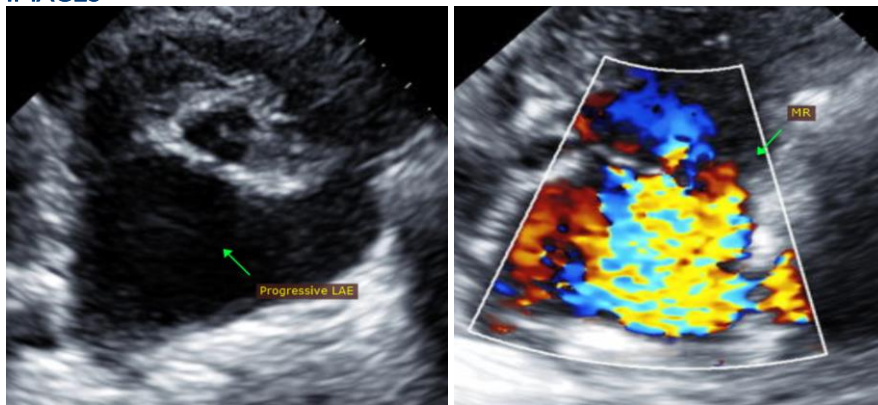
Elective anesthesia is not advised.

PLAN

Continue Pimobendan 0.3mg/kg PO q12h. Institute Spironolactone 1-2mg/kg Po q12h. Institute ACE-I 0.5mg/kg PO q12h. Monitor renal values and BP in 1-2 weeks then every 3-4 months lifelong. Consider hydrocodone as discussed.

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.

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com