



PATIENT

Izzy Langen

SPECIES

Canine

BREED

Maltese Mix

SEX

Female Spayed

AGE

9.10 years

WEIGHT

11.7lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Greg Kuhlman, DVM

HOSPITAL NAME

Red River Animal
Emergency Hospital &
Referral Center

REFERRING VET

Dr. Kuhlman

INVOICE

47267

DATE

3/24/26

PRESENTING CLINICAL SIGNS

History: Recheck echo. Doing well. Sedated with Torb. BP: 140mmHg.

-Current medications: Pimobendan 1.25mg PO BID, Gabapentin 25mg PO BID, and Trilostane (Vetoryl) 5mg PO BID.

-Pertinent previous echo findings (11/2025 MML): CVD B2. Moderate MR, moderate LAE, mild LVE, trace TR, mild PH. LA: 2.2, LV: 3.2, TR: 3.3.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. Severe eccentric mitral regurgitation with severe left atrial dilation. Moderate LV dilation with hyperdynamic myocardial function. The tricuspid valve appears normal with trace 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 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	6.0	3.0	NM	2.0	52	90	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	1.6	1.0	5.3	2.5	3.5	1.7
*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)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease persists with continued evidence of progression. Moderate mitral regurgitation is now severe, and the left heart is progressively dilated. This would suggest the risk for spontaneous congestive heart failure is elevated going forward. Early pulmonary hypertension is unchanged, and no additional issues are identified.



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Even without significant respiratory changes, it is reasonable to initiate Spironolactone and an ACE-I at this time as below given apparent progression. Prognosis is guarded long-term (stage late B2), and patient will always be at risk for recurrent CHF, development of arrhythmias/LA tear, syncope and/or sudden death in the future.

Omega fatty acid supplementation and mild salt restriction remain recommended. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes. Serial monitoring of SRRs is recommended as the best way to screen for progression towards CHF at home.

Elective anesthesia is not advised, as there is high risk for complication. Should you elect to proceed, cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, iso or sevoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction and recover in O2 cage. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Moderate IV fluid restriction is recommended to avoid fluid overload, while considering comorbidities, hydration status, BP, etc. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

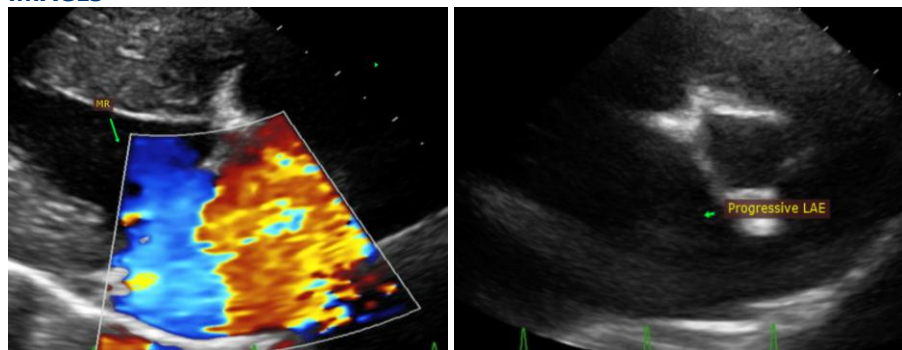
PLAN

Continue Pimobendan as prescribed. Institute Spironolactone 1-2mg/kg PO q12h. Institute ACE-I 0.5mg/kg PO q12h. Consider Hydrocodone if needed for QOL.

Recheck renal vales and BP in 1-2 weeks then every 4-6 months lifelong.

Recommend conservative monitoring with a recheck echocardiogram 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



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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.

Maggie Machen Lamy, DVM

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