

**PATIENT**

Mini Seda

**PRESENTING CLINICAL SIGNS**

History: Recheck echo. History of congestive heart failure. No further update provided.

-Pertinent abnormal PE/Chem/CBC/UA Results: NSF.

-Current medications: Vetmedin 2.5mg 1/2 PO BID, Furosemide 12.5mg 1/4 PO BID, Benazepril 5mg 1/4 PO BID, Spironolactone 25mg 1/4 PO BID.

**SPECIES**

Canine

-Sedation used: Sedation not required for scan.

-Pertinent previous ultrasound results (6-15-2020 MML): Severe MR, severe LAE, mild LVE. LA: 2.0, LV: 2.64, LA/AO: 2.1.

-STAT: Not requested.

**BREED**

Chihuahua

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. Marked thickening of mitral valve leaflets with marked prolapse into the left atrial lumen. Trace eccentric mitral regurgitation with no left atrial enlargement. Normal MR velocity. No LV dilation with adequate myocardial function. The tricuspid valve appears normal with no 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.

**SEX**

Female Spayed

**AGE**

8 years

**CARDIAC CHART****WEIGHT**

6.4lbs

**INTERPRETED BY**Maggie Machen  
Lamy, DVM, DACVIM  
(Cardiology)

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	4.8	NA	NM	1.3	40	76	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	175	0.93	1.0	2.9	1.3	2.0	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)
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				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)

**HOSPITAL NAME**Prime Care Animal  
Hospital**REFERRING VET**

Dr. Martin

**INVOICE**

21457

**DATE**

10/11/21

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Unusual case. Previously documented severe left heart enlargement has resolved. The valve remains markedly abnormal; however, there is no evidence of volume overload and the quantity of MR is diminished as well. This is rare but can happen despite significant valve thickening. No additional issues are noted in this study.

Given these findings, there is no obvious indication to continue diuretic therapy at this time. Consider weaning Lasix, Spironolactone and Benazepril as below. If patient continues to do well and a follow up exam shows persistently mild disease, Pimobendan may also be discontinued. Prognosis is open long-term pending monitoring for clinical changes. Even with improvement seen here, patient will always be at risk for progression in the future. Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

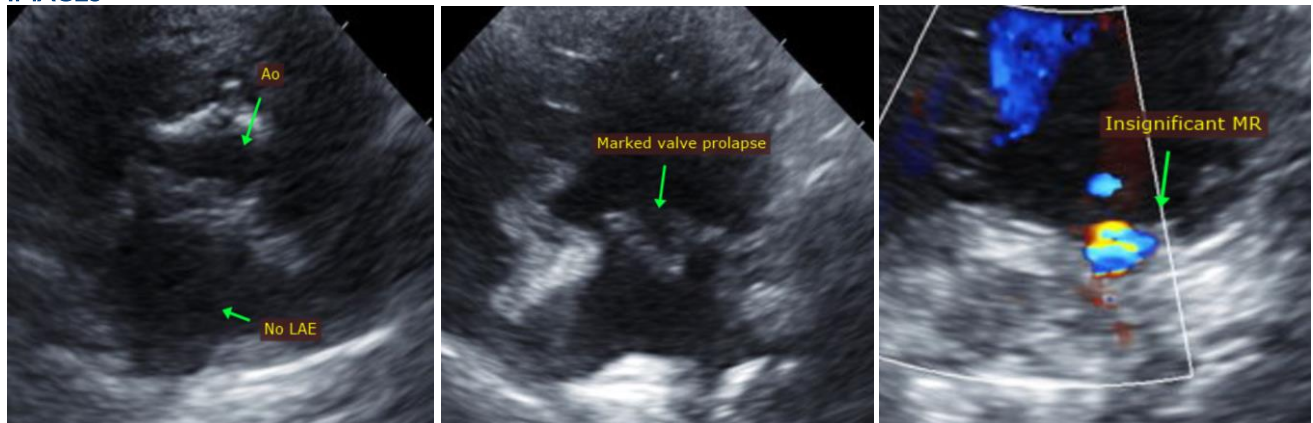
Anesthetic risk is considered mild if needed. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Mild IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

## PLAN

Discontinue Lasix. If doing well in 1 week, discontinue Spironolactone and Benazepril. Continue Pimobendan as prescribed.

Recommend conservative monitoring with a recheck echocardiogram in 6 months. If disease remains stable/mild, Pimobendan consider discontinue Pimobendan.

## 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**  
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