



**PATIENT**

Lala Marin

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Female Spayed

**AGE**

10 years

**WEIGHT**

5.38lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Kelly Vazquez, CVT

**HOSPITAL NAME**

Animal General on  
Hudson

**REFERRING VET**

Dr. Lang

**INVOICE**

24816

**DATE**

6/15/22

**PRESENTING CLINICAL SIGNS**

History: Recheck echo. Experienced an episode of respiratory distress after travel. CHF was reported; however, no medications were prescribed. No reported medications currently.

-Pertinent previous echo findings (8/2021 MML): Mild MR, mild LAE, no LVE, no TR. LA: 1.5, LV: 2.3.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets with significant prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation with moderate progressive left atrial dilation. Normal MR velocity. Borderline LV diameter with hyperdynamic 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 valve is normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. Aortic and pulmonic valve appears normal with 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	NA	NM	1.7	37	70	0.16
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	1.1	0.65	0.73	2.4	1.8	2.8	1.5
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
<b>BODY WEIGHT DEPENDENT PARAMETERS</b>				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 causing moderate mitral regurgitation. Compared to the previous study, there is progression in quantitative MR and LA dimension. Moderate left atrial enlargement indicates the risk for spontaneous congestive heart failure may progress in the future. It is reasonable to initiate cardiac supportive Pimobendan at this time as below, given these progressive issues. There is no evidence of systolic dysfunction or other comorbidities at this time. Even with mild progression, prognosis remains guarded (stage B2).



**PATIENT**

Lala Marin

The history is confounding as CHF was diagnosed, yet no medications are being utilized. This is considered unlikely in light of moderate disease seen here and a stable patient without Lasix; however, further historical information is necessary. Regardless, if the patient experienced a respiratory crisis, travel should be avoided going forward. If needed, utilize anti-anxiety and/or sedatives to decrease stress for the event.

**SPECIES**

Canine

Once on the medication for 3-5 days, anesthetic risk is considered mildly elevated. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, iso/sevo gas) are recommended. Pre-oxygenate for 5-10 min prior to induction. 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.

**BREED**

Chihuahua

**SEX**

Female Spayed

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

**AGE**

10 years

**PLAN**

Screening BP. Institute Pimobendan 0.25-0.3mg/kg PO q12h.

**WEIGHT**

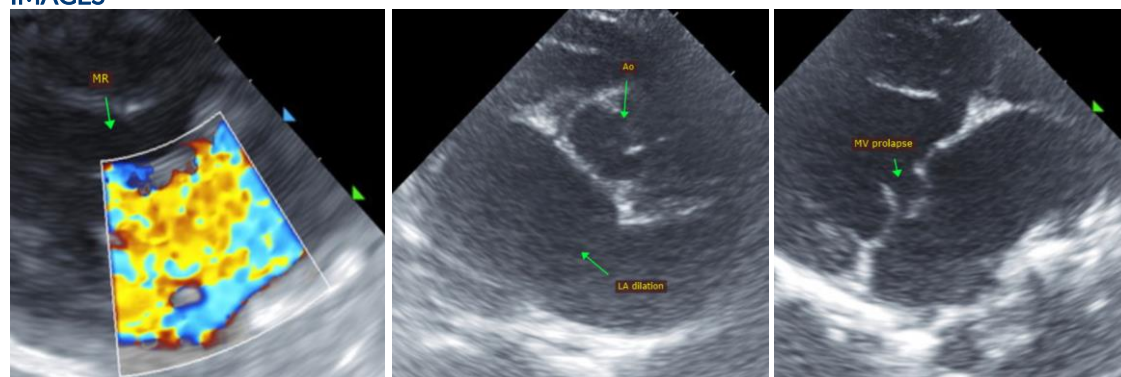
5.38lbs

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

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(Cardiology)

**IMAGES**



**IMAGING PERFORMED BY**

Kelly Vazquez, CVT

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.

**HOSPITAL NAME**

Animal General on  
Hudson

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.

**REFERRING VET**

Dr. Lang

**INVOICE**

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