



## PATIENT

Zoe Zaretski

## PRESENTING CLINICAL SIGNS

History: Grade 4/6 murmur with episodes of syncope. On pimobendan and furosemide for the last 30 days due to a persistent cough.

## SPECIES

Canine

## ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve is thickened with mild prolapse into the left atrial lumen. There is moderate to severe eccentric mitral regurgitation present. There is moderate left atrial enlargement. There is mild left ventricular dilation. Left ventricular systolic function is hyperdynamic. There is normal systolic flow velocity across the aortic valve, no insufficiency. The aortic valve appears normal. Mild right heart enlargement. The tricuspid valve is mildly thickened with mild to moderate tricuspid regurgitation. The tricuspid regurgitant velocity is consistent with moderate pulmonary hypertension. The pulmonary artery and pulmonic valve are normal. No PI. No pericardial/pleural effusion or cardiac masses are seen.

## BREED

Poodle Mix

## SEX

Female Spayed

## CARDIAC CHART

### AGE

13 years

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	5.0	3.6	1.8	1.7	48	80	0.3
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	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	110	0.9	0.5	6.8	2.5	3.3	1.7
*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 to severe mitral and mild to moderate tricuspid regurgitation. Moderate left atrial enlargement indicates there may be elevated risk for spontaneous congestive heart failure in the future. Moderate pulmonary hypertension is also identified, with mild right heart enlargement. Given the combination of findings, Pimobendan is certainly recommended as below.

## INVOICE

23028

Coughing/syncope in this patient may be cardiogenic in origin; however, primary respiratory disease must also be considered. Radiographs will be useful with a Radiologist review if possible. If CHF was identified or suspected, then Lasix should be continued as below. That being said,

## DATE

3/9/22

## INTERPRETED BY

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

## IMAGING PERFORMED BY

Chris Belan,  
DVM

## HOSPITAL NAME

Cambrian Animal  
Hospital

## REFERRING VET

Dr. Sharma



**PATIENT**

Zoe Zaretski

most patients with this degree of disease do not require diuretic therapy and my hope is this can be discontinued. Most patients with cough associated syncope will improve by simply treating the cough aggressively with Hydrocodone. That being said, if syncope is independent of the cough and occurs with exertion, Sildenafil may be warranted. More historical information is necessary.

**SPECIES**

Canine

The cough (i.e., primary respiratory disease) is the suspected cause of development of pulmonary hypertension. It is important to note that PAH doesn't cause the cough; rather the inverse is true. Adequate cough suppression is of the up most importance to maintain stability going forward.

**BREED**

Poodle Mix

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.

**SEX**

Female Spayed

Elective anesthesia is not advised.

**AGE**

13 years

**PLAN**

Continue Pimobendan 0.25-0.3mg/kg PO BID. CXR review recommended, if CHF is suspected continue Lasix 1-2mg/kg PO q12h and add ACEI 0.5mg/kg PO q12. If CHF is not suspected, discontinue Lasix. If syncope is independent of the cough and occurs with exertion, Sildenafil may be beneficial 1-2mg/kg PO q8-12h. Consider further respiratory workups/treatment with Hydrocodone if indicated.

**WEIGHT**

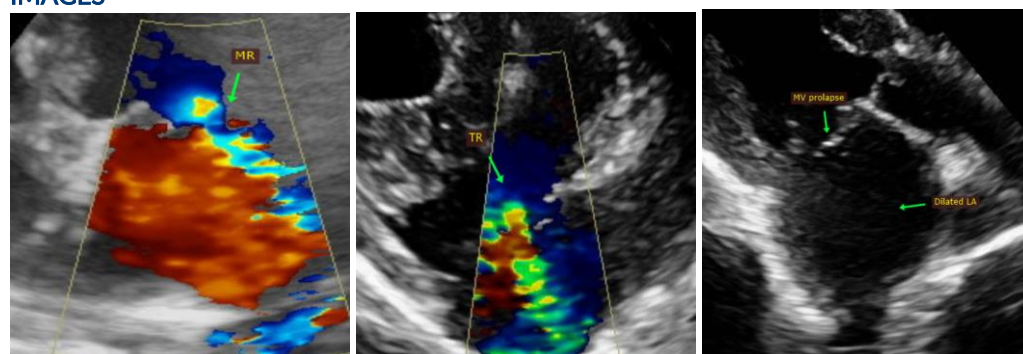
6.8

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

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGES**



**IMAGING PERFORMED BY**

Chris Belan,  
DVM

**HOSPITAL NAME**

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Hospital

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.

**REFERRING VET**

Dr. Sharma

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.

**INVOICE**

23028

Maggie Machen Lamy, DVM  
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)

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**SPECIES**

Canine

**BREED**

Poodle Mix

**SEX**

Female Spayed

**AGE**

13 years

**WEIGHT**

6.8

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