



**PATIENT**

Motita Centeno Pedraza

**SPECIES**

Canine

**BREED**

Toy Poodle

**SEX**

Female Spayed

**AGE**

13 years

**WEIGHT**

11.6lbs

**INTERPRETED BY**

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Ferrer, DVM

**HOSPITAL NAME**

Paseos Veterinary Center

**REFERRING VET**

Dr. Martes

**INVOICE**

21459

**DATE**

10/11/21

**PRESENTING CLINICAL SIGNS**

History: Presented on October 2, 2021, for evaluation of head mass. Cough frequency has increased. Patient is dyspneic. She was diagnosed at another veterinary clinic with tracheal collapse. Grade 5/6 heart murmur.

-Current medications: Patient is on Apoquel 1/2 tablet BID and enalapril 2.5mg 1 tablet SID.

**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. Moderate eccentric mitral regurgitation with moderate left atrial dilation. Normal MR velocity. Mildly increased LV diameter with hyperdynamic myocardial function. The tricuspid valve appears thickened with moderate tricuspid regurgitation. Velocity consistent with early pulmonary hypertension. Normal right heart. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities. No aortic or 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	5.5	3.0	NM	1.8	37	70	0.22
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	187	1.0	0.9	5.3	2.2	3.0	1.9
*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 and moderate tricuspid regurgitation. Moderate left atrial enlargement indicates there is relatively low risk for imminent complication, however risk for progression to spontaneous congestive heart failure in the future is elevated. Early pulmonary hypertension is noted which is likely due to a chronic cough in this patient. No additional issues are identified.



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Given the risk for progression and results of the EPIC trial, Pimobendan is indicated in this patient as below. There is no confirmed benefit to use ACE-I in B2 dogs; however, this if this is well tolerated and the blood pressure is normal it is reasonable to continue. Assessment of progression in the future will help predict long term outcome, however prognosis is guarded at this stage (B2).

**SPECIES**

Canine

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. Screening chest radiographs are recommended.

**BREED**

Toy Poodle

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

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 or sevo gas) are recommended. 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.

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**PLAN**

Institute heart muscle support Pimobendan 0.3mg/kg PO q12h. Consider continue versus discontinue Enalapril based upon blood pressure. Consider hydrocodone as discussed.

**INTERPRETED BY**

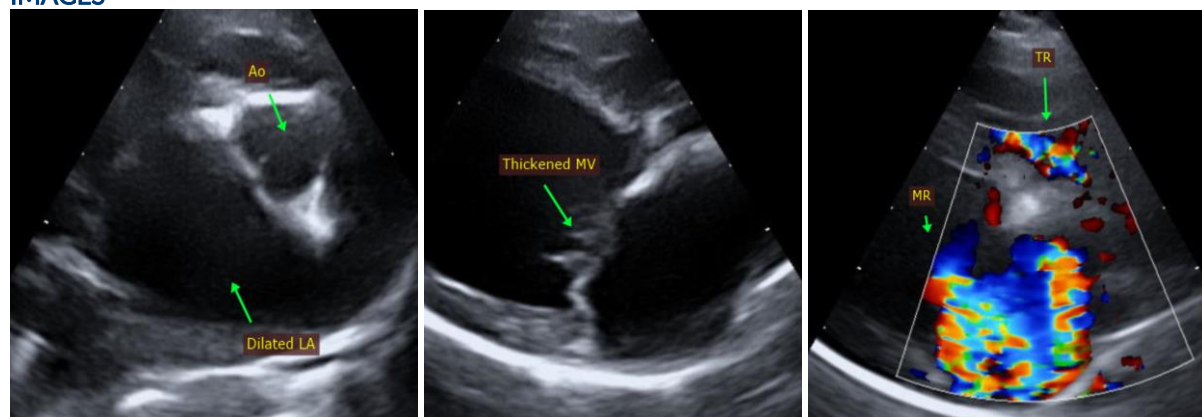
Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

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

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**IMAGES**



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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.

**SPECIES**

Canine

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.

**BREED**

Toy Poodle

**Maggie Machen Lamy, DVM**  
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info@sonopath.com

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