

## PATIENT

Molly Magoo Austin

## SPECIES

Canine

## BREED

Schnauzer Mix

## SEX

Female Spayed

## AGE

12 years

## WEIGHT

13.7lbs; 6.2kgs

## INTERPRETED BY

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

## IMAGING PERFORMED BY

Wavelength Vet  
Services

## HOSPITAL NAME

Brookwood Animal  
Clinic

## REFERRING VET

Dr. Loomis

## INVOICE

21790

## DATE

11/1/21

## PRESENTING CLINICAL SIGNS

History: Recheck echo. Grade 5/6 heart murmur. Coughing.  
-Current medications: Furosemide 12.5mg q d, enalapril 2.5mg BID, vetmedin 2.75mg BID.  
-Pertinent previous echo findings (12/2019 MML): Severe degenerative valve disease.

## ECHOCARDIOGRAM FINDINGS

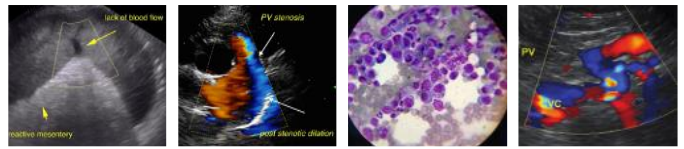
2D, m-mode and Doppler imaging are available. Marked thickening of mitral valve leaflets (anterior > posterior) with marked prolapse into the left atrial lumen. Severe eccentric mitral regurgitation with severe left atrial dilation. Significant LV dilation with hyperdynamic myocardial function. The tricuspid valve appears mildly thickened, with mild tricuspid regurgitation. Normal velocity. Mild right atrial and ventricular dilation consistent with early pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities. No pulmonic or aortic insufficiency. No pericardial or pleural effusion noted. No cardiac tumors observed. An underlying sinus rhythm with periods of suspect SVT is identified throughout the study (single lead ECG attached).

## 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	5.2	2.6	NM	2.8	45	78	0.14
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	1.2	0.6	6.2	3.2	3.6	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 persists with evidence of significant progression. Severe mitral and mild tricuspid regurgitation have led to marked left heart enlargement over time. The risk for spontaneous congestive heart failure is elevated. Mild TR is also noted, with evidence of early pulmonary hypertension. No additional issues such as systolic dysfunction are identified. Intermittent rapid arrhythmias are suspected and a **baseline ECG is recommended**.



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The described cough is likely multi-factorial in origin, including a mechanical component due to cardiomegaly, possible concurrent airway disease and/or early CHF given the severity of disease. Baseline radiographs are strongly recommended. Given the symptoms and echo findings, full lifelong cardiac support is recommended as below including Lasix therapy. Depending on clinical response to the medications, cough suppression may also be useful. Monitoring of sleeping breathing rates in the future will be paramount to determine the origin of any future cough. The average survival of canine patients with active pulmonary edema is 8-9 months on medications, however they generally are able to maintain a good quality of life for that period. Patient will always be at risk for recurrent CHF, development of arrhythmias/LA tear, syncope and/or sudden death in the future. Monitoring of renal values is recommended lifelong.

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

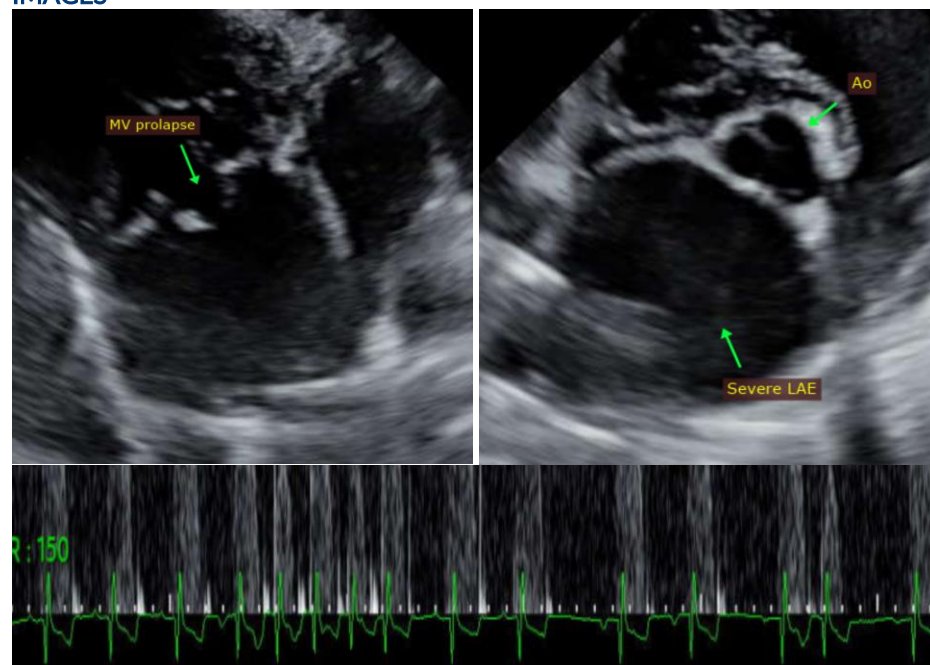
**PLAN**

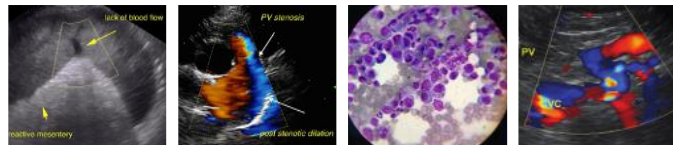
A baseline BP, ECG and CXR are strongly recommended. Administer Pimobendan 0.3mg/kg PO q12h. Administer furosemide/Lasix 1-2 mg/kg PO q12h. Administer spironolactone 1-2mg/kg PO q12h. Consider hydrocodone with homatropine (0.2-0.4mg/kg PO up to q4-6 hours PRN) if cough persists despite normal SRRs.

A renal panel and BP are recommended in 10-14 days, then every 3-4 months lifelong.

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

**IMAGES**





**PATIENT**

Molly Magoo Austin

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.

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Schnauzer Mix

**Maggie Machen Lamy, DVM**  
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)  
info@sonopath.com

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