



**PATIENT**

Fortune Steele-Hunter

**SPECIES**

Canine

**BREED**

Toy Poodle

**SEX**

Male Neutered

**AGE**

16 years

**WEIGHT**

11.8lbs

**PRESENTING CLINICAL SIGNS**

History: Recheck echo. Presented for labored breathing since yesterday afternoon. Was off medication for ~3 months. BP: 120mmHg.

-Radiographs: Big heart, perihilar edema, collapse trachea

-Current medications: Furosemide, Pimobendan, Sildenafil.

-Sedation used: Not required to complete full diagnostic ultrasound.

-Pertinent previous ultrasound results (1/2023 MML): Moderate MR, moderate LAE, mild LVE, mild TR, moderate PAH. LA: 2.3, LA/AO: 1.8, LV: 3.1, TR: 4.0.

-STAT: Not requested

-Imaging performed by: Rachel Brilhart, RDMS.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets with mild prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation with moderate left atrial dilation. Normal MR velocity. Borderline LV dilation with adequate myocardial function. The tricuspid valve appears mildly thickened with mild tricuspid regurgitation. Velocity consistent with mild pulmonary hypertension. Mild right heart enlargement. The pulmonic valve is normal in morphology and mobility. Aortic valve is mildly thickened with trace AI. Normal pulmonic and aortic outflow velocities with laminar flow. No obvious pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

**CARDIAC CHART**

**INTERPRETED BY**

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

**HOSPITAL NAME**

Animal Emergency Hospital

**REFERRING VET**

Dr. Willer

**INVOICE**

31700

**DATE**

7.6.23

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	5.3	3.1	NM	1.8	58	89	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	160	0.8	0.9	5.4	2.4	2.6	1.1
*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)
*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)

Adapted from June Boon, Veterinary Echocardiography, 1998  
 Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435  
 Hansson et al, Vet Rad and Ultrasound 2002  
 Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995

### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Compared to the prior study, findings are persistently stable. Moderate MR persists without progressive left heart enlargement. The pulmonary hypertension have actually improved comparatively with persistent mild TR. A small aortic valve insufficiency is unchanged, and no additional issues are identified.

Given these findings, development of CHF is possible although unexcepted even with discontinuation of the medications. This patient has a history of presumed respiratory disease and PAH, which must also be considered. A Radiologist review of the films is recommended, if not already obtained. If CHF is suspected and the patient responded to diuretic therapy, this should certainly be continued going forward with reinstatement of Pimobendan and Sildenafil as previously recommended regardless. If CHF is confirmed, addition of Spironolactone is also recommended.

Continue to monitor for progressive cough, labored breathing, exercise intolerance or collapse at home. Monitoring of sleeping respiratory rates (SRRs) is recommended to screen for progression to CHF at home.

Anesthesia is not advised if CHF is confirmed.

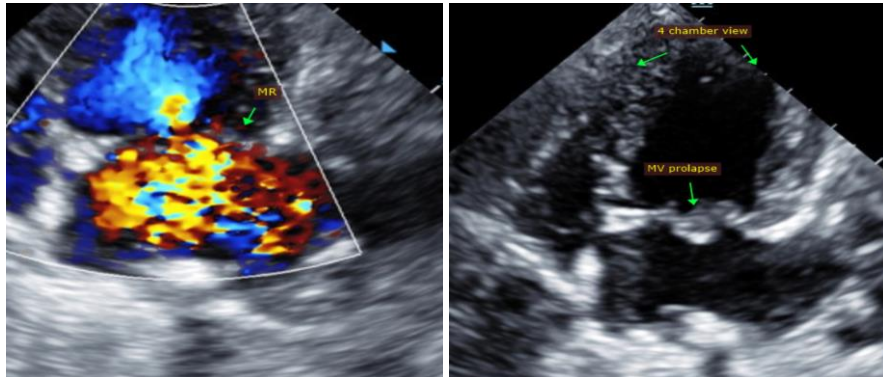
### PLAN

Continue Pimobendan and Sildenafil as previously recommended. Consider confirm CHF to determine if Lasix is warranted going forward. In this instance, institute Spironolactone 1-2mg/kg PO q12h.

Monitor renal values and BP every 3-4 months lifelong.

Recheck echocardiogram in 6 months, sooner if any clinical signs arise.

### 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.

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