



**PATIENT**

Freda Loushack

**SPECIES**

Canine

**BREED**

Beagle

**SEX**

Female Spayed

**AGE**

12 years

**WEIGHT**

23lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Amy Mayhew, LVT

**HOSPITAL NAME**

SVS Imaging MI

**REFERRING VET**

Briarwood Veterinary  
Hopspital

**INVOICE**

25668

**DATE**

8/9/22

**PRESENTING CLINICAL SIGNS**

History: Heart failure. Kidney failure. Liver issues. Assess prior to dental.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. Mild mitral regurgitation with no left atrial dilation. Elevated MR velocity. Normal to decreased LV diameter with adequate myocardial function. Moderate LV hypertrophy (1.3cm). The tricuspid valve appears normal with no tricuspid regurgitation. Normal right atrial and ventricular diameter and morphology. The pulmonic valve is normal in morphology and mobility. The aortic valve is mildly thickened. Normal pulmonic and aortic outflow velocities with laminar flow. Mild aortic and no pulmonic insufficiency. Dilated aortic root and ascending segment. 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	6.8	2.4	NM	1.3	33	60	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	NM	1.5	1.4	10.4	2.4	3.0	2.0
*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 mild mitral regurgitation. Lack of significant left atrial enlargement indicates the current risk for complication is low. Of more clinical importance, there are markers of systemic hypertension including a significant aortic leak and mild LV hypertrophy. **A baseline blood pressure is strongly recommended with further systemic evaluation if SHT is confirmed. Additionally, lab work should be assessed as pseudohypertrophy may also be present.** No additional issues are noted in this study.

In a dog with no significant left atrial enlargement, no cardiac medications are clearly indicated.

**Heart failure is mentioned in the history, which is certainly not present in this case. No**

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indication for Lasix or other cardiac support at this time. Assessment of progression in the future will help predict long term prognosis, which is highly variable at this stage. Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

**SPECIES**

Canine

Anesthetic risk is considered mild if needed (pending BP/lab assessment). Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Mild IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

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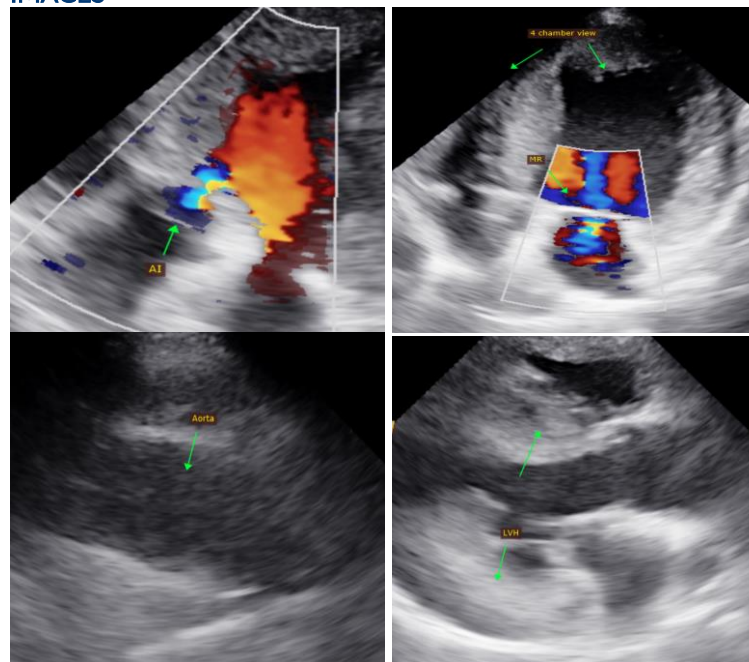
Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

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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.

**REFERRING VET**

Briarwood Veterinary Hopspital

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

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

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