



**PATIENT**

Layla Casa

**SPECIES**

Canine

**BREED**

Lhasa Apso

**SEX**

Female Spayed

**AGE**

13 years

**WEIGHT**

30.7lbs

**PRESENTING CLINICAL SIGNS**

History: Layla is referred to evaluate a heart murmur. Good appetite and normal activity level. She has a hacking cough when doing upstairs. On exam: NSR, grade III/VI murmur with PMI left apical area, lung fields slightly harsh on inspiration throughout chest. PSS. Unable to obtain blood pressure. \*Sedated with propofol for study.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and Doppler imaging is available.

**Left ventricle:** The LV diameter is normal with adequate myocardial function. LV wall thicknesses are normal.

**Left atrium:** The left atrium is normal in dimension.

**Mitral valve:** The mitral valve is mildly thickened with no prolapse into the left atrial lumen. Mild mitral regurgitation.

**Aortic valve/Aorta:** The aortic valve is mildly thickened with normal mobility. Normal aortic outflow velocity; laminar flow. No aortic insufficiency.

**Right ventricle:** Mildly enlarged RV.

**Right atrium:** Mildly enlarged RA.

**Tricuspid valve:** The tricuspid valve appears mildly thickened with mild tricuspid regurgitation; velocity consistent with mild pulmonary hypertension.

**Pulmonary valve/Pulmonary artery:** The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow.

**Pericardium/other:** No pericardial or pleural effusion noted. No obvious cardiac masses.

**2-Dimensional Measurements**

Ao diam (cm)	1.6
LA diam (cm)	1.8
LA:Ao (Swe)	1.1
IVS thickness (cm)	0.9
LVID diastole (cm)	2.1
PW thickness (cm)	1.0
LVID systole (cm)	0.8
FS (%)	62

**Doppler Measurements**

PV Vmax (m/s)	0.8
AoV Vmax (m/s)	1.3
MR Vmax (m/s)	NM
TR Vmax (m/s)	3.1
TR PG (mmHg)	39

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**IMAGING**

**PERFORMED BY**

Pamela Harrigan,  
RDCS

**HOSPITAL NAME**

Mass Veterinary Services

**REFERRING VET**

Dr. Masloski

**INVOICE**

26958

**DATE**

10/18/22

**INTERPRETATION OF THE FINDINGS**

Chronic degenerative valve disease causing mild mitral and tricuspid regurgitation. Lack of chamber enlargement indicates the current risk for complication is low. Mild pulmonary hypertension is identified with mild right heart enlargement, this is likely developing secondary to underlying airway disease given the history. No concurrent issues such as systolic dysfunction are noted in this study. Assessment of progression in the future will help predict long term prognosis, which is highly variable at this stage (B1).

Given these findings, the cough is certainly non-cardiogenic in origin. Respiratory disease is suspected, based upon the history and CXR results. If the cough is poorly controlled/progresses long term, this can certainly lead to worsening of PAH. Clinical signs of significant PAH include exertional dyspnea/collapse. Continued monitoring is advised. Cough control is recommended lifelong (hydrocodone, intermittent AI prednisone, fluoroquinolone for acute flare up, etc.).



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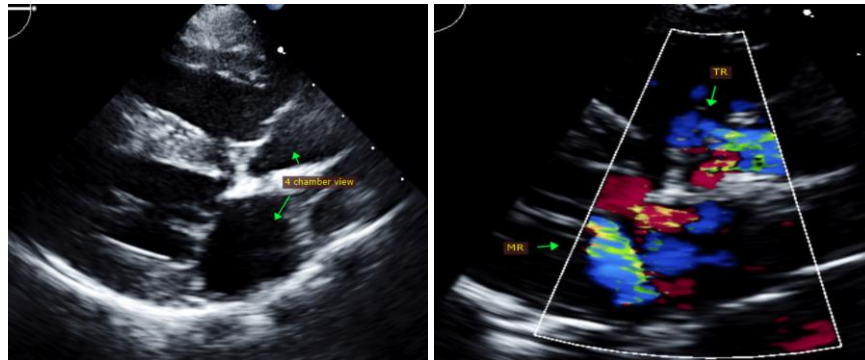
**RECOMMENDATIONS**

- In a dog without significant left atrial enlargement, no cardiac medications are clearly indicated.
- Consider hydrocodone/further respiratory work-up/tx as discussed.
- Monitor BP every 6 months due to the significance of the aortic leak.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- No cardiac contraindication for general anesthesia. Pre-oxygenate for five minutes and recover in O2 if possible. Mild IV fluid restriction is advised.
- Monitor for development of a progressive cough, labored breathing, exercise intolerance or collapse episodes.

**PLAN**

- Recommend conservative monitoring with a recheck echocardiogram in 6-12 months, sooner if any development of clinical signs.

**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.

**Maggie Machen Lamy, DVM**  
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**Echocardiogram performed by:**

Pamela Harrigan, RDCS  
Pet Animal Ultrasound Service (4paus.com)