



**PATIENT**

Luna McDowell

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Spayed Female

**AGE**

11 Years

**WEIGHT**

12

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP (Canine  
/ Feline Practice)

**IMAGING PERFORMED BY**

Trish Turner CVT

**HOSPITAL NAME**

Straley Veterinary  
Associates

**REFERRING VET**

Dr. John Shapira

**INVOICE**

16164

**DATE**

05/13/26

**PRESENTING CLINICAL SIGNS**

Since last scan went to emergency vet 4/6/2026 for increased hacking/coughing on occasion then episode of labored breathing. Hospitalized at ER for CHF and pulmonary edema. Started on Pimobendan twice a day and furosemide twice a day.

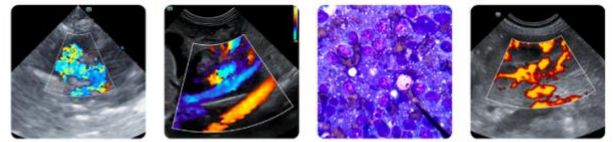
Abnormal PE/Chem/CBC/UA Results: Rads 4/9/26 showed: Radiographs- lung fields are clear, has L atrial enlargement VLAS is 2.7

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	5.2	--	NM	1.76	50	82	0.3
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	LAD LA MAX 4 Chamber	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				
PATIENT	NM	1.6	--	12	3.3	3.4	--

**Cardiac Presentation**

The echocardiogram in this patient demonstrated moderate increased **left atrial** dimension based on 2 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented thickening (anterior greater than posterior) consistent with endocardiosis with mild septal leaflet prolapse. Doppler indicated measurable moderate to significant MR. The **left ventricle** presented thicknesses with linear contour and moderate increased LV dimension. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. Normal measured LVOT velocity with mild aortic valve insufficiency on doppler. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted. No echographically detectable evidence of cardiac / pericardial tumors was visible. No evidence of arrhythmia.



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## ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease with valve prolapse (ACVIM stage B2).
- Mild aortic valve insufficiency.

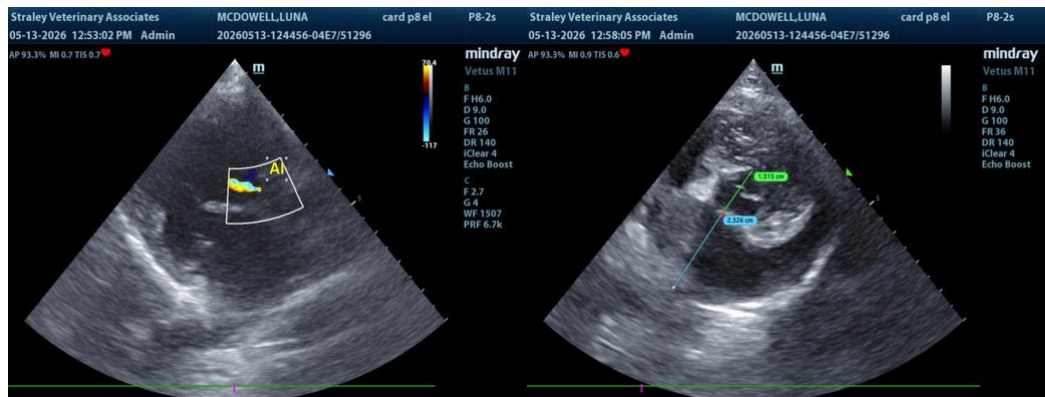
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Evidence of progression compared to the previous study with moderate increased LA/LV dimension indicate the current and future risk of complications, secondary to MR and possible emerging left heart volume overload, is at least moderately elevated. The degree of LA/LV enlargement was not definitively consistent with congestive criteria, yet early congestion is possible.

Continued Pimobendan at 0.3 mg/kg PO BID and lowest effective dose of LASIX at 1-2 mg/kg BID with monitoring of clinical response is recommended. Baseline monitoring of resting respiration rate going forward is advised. If patient appears stable, decreased LASIX dose or frequency with clinical monitoring could be considered. Assessment of systemic BP, monitoring of ECG and renal parameters if on diuretic therapy is indicated.

Prognosis is considered variable and sonographic monitoring is advised. Recheck echo is recommended in six months, sooner if progressive clinical signs. Concurrent antitussive medication (hydrocodone) may prove beneficial.

Anesthetic risk is considered mild to moderately elevated. If required, the following protocol is suggested with judicious IV fluid use and avoidance of long anesthetic time. Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.





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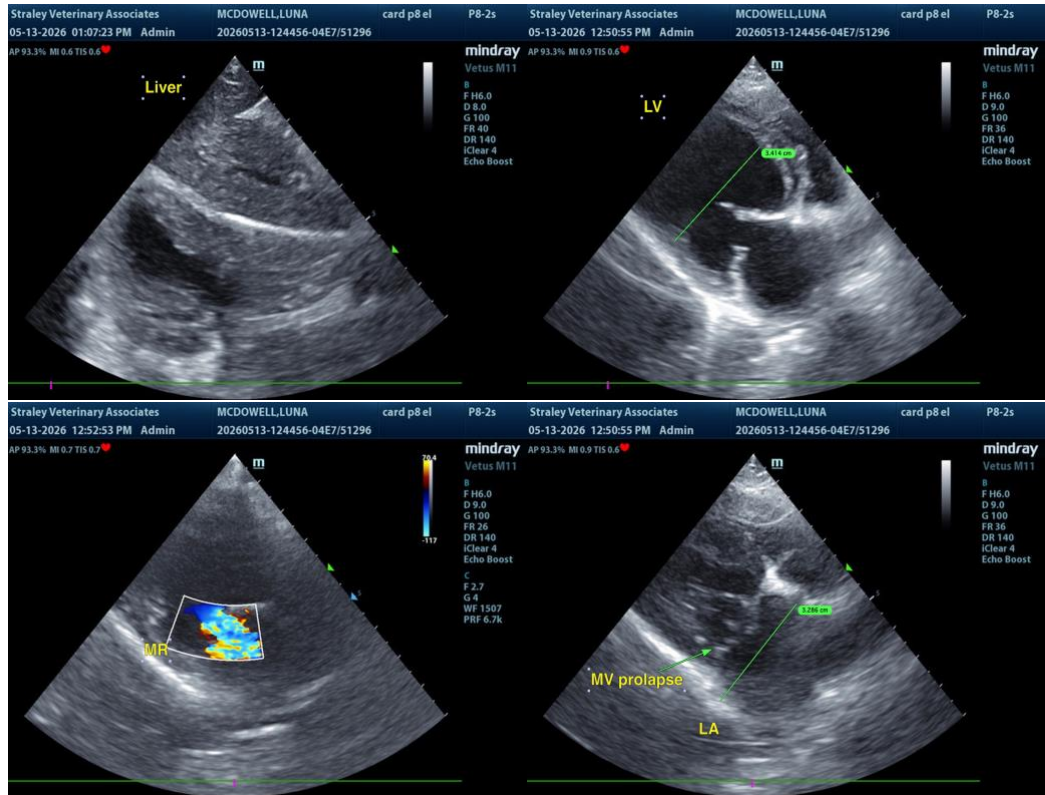
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

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