



## PATIENT PRESENTING CLINICAL SIGNS

Lucy Welton 3/6 Systolic murmur first diagnosed 4/18/22 Heart Rate and Respiratory Rates HR 140, Resp Rate 25  
Current Medications vetmedin, enalapril was prescribed in 4/18/22 but not refilled Radiographic Findings Enlarged heart pinching on trachea, no pulmonary edema, no pleural fluid Primary Question/Differential to Be Answered in This Exam prognosis, need for additional medication?

Canine

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

### BREED

Chihuahua X

### SEX

Spayed Female

### AGE

11 Years

### WEIGHT

21 Pounds

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	5.6	2.3	1.8	1.78	56.7	88.6	0.21
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	79	1.5	0.85		3.9	3.3	

## INTERPRETED BY

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

## IMAGING PERFORMED BY

Jenna Walsh, CVT

## HOSPITAL NAME

Albany Animal Hospital

## REFERRING VET

Dr. Flanagan

## INVOICE

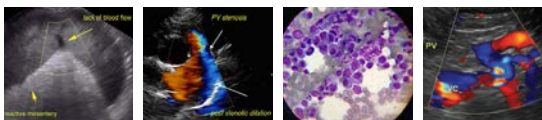
42283

## DATE

10/21/22

### Cardiac Presentation

The echocardiogram for this patient presented mildly excessive **left atrial size** expressed both in the LA/AO and LA max measurements. Subtle deviation of the intraatrial septum towards the right atrium noted, suggestive of mild increased left atrial pressure. The cranial and caudal **mitral** valve leaflets presented degenerative thickening consistent with endocardiosis with mild prolapse of the septal leaflet. Doppler indicated measurable moderate eccentric insufficiency. The **left ventricle** presented normal thicknesses with linear contour with minor increased left ventricular volume. 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. 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. Trace TR present on doppler. 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 infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.



**PATIENT ULTRASONOGRAPHIC FINDINGS**

Lucy Welton

- Chronic mitral valve disease (ACVIM B2) with minor mitral valve septal leaflet prolapse
- Trace TR – no evidence of clinical pulmonary hypertension.

**SPECIES**

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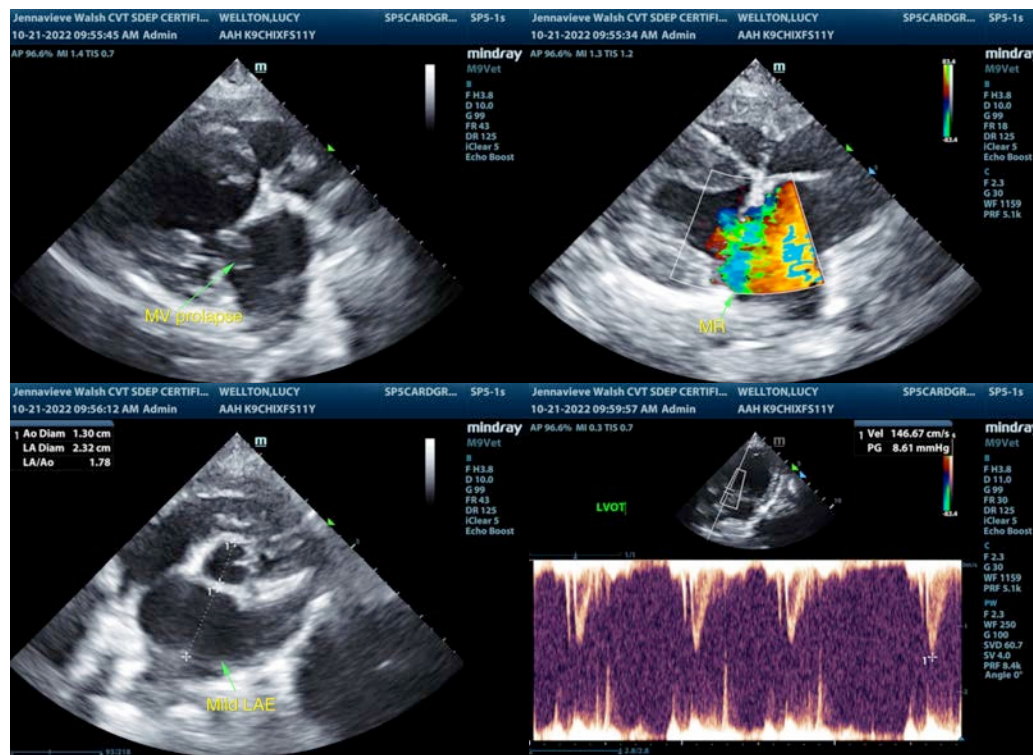
**REFERRING VET**

Dr. Flanagan

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The mild left atrial enlargement as well as subjective minor increased left ventricular volume indicate that the current and future risk of complications secondary to mitral valve insufficiency is mildly elevated.

Given this presentation, Pimobendan 0.3 mg/kg PO BID is warranted. No overt indication for diuretic therapy at this stage, given lack of radiographic pulmonary edema as well as normal resting respiration rate. Continued monitoring of resting respiration rate going forward is advised. ACE inhibitor medication would be appropriate if evidence of BP >130 (not overtly indicated if BP <130). Prognosis at this stage is highly variable, and serial sonographic monitoring is required. Recheck echocardiogram suggested in 6 months, sooner if clinical signs arise.



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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.

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