



**PATIENT**

Henry Martin

**PRESENTING CLINICAL SIGNS**

5/6 heart murmur. Left atrial enlargement, CHF, cardiomegaly. Hydrocodone 5mg 1/4 BID, Enalapril 2.5mg 1/2 BID. Salix 12.5mg EOD

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

**BREED**

Chihuahua

| 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                   | 5.5           | 3.0           | NM             | >2.0                    | 37                   | 68                                       | 0.1                                      |
| CANINE CARDIAC PARAMETERS | HR (BPM)      | AV VMAX (m/s) | PV MAX (m/s)   | BODY WEIGHT (lbs)       | 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                   | 159           | 1.1           | 0.7            | 6                       | 4.5                  | 3.24                                     | --                                       |

**SEX**

Intact Male

**AGE**

11 Years 4 Months

**WEIGHT**

6 lbs

**INTERPRETED BY**

Eric Lindquist, DMV, DABVP(CFM), Cert. IVUSS

**Cardiac Presentation**

The mitral valve presented with clubbed vegetative changes on the anterior leaflet. Prolapse of the anterior leaflet was also noted. Severe left atrial enlargement was present as well as moderate left ventricular volume overload. Doppler indicated measurable insufficiency. 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. 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. Arrhythmogenic activity was noted in this patient. The hepatic veins were not dilated.

**IMAGING PERFORMED BY**

Chloe Lowe CVT

**HOSPITAL NAME**

William Penn Veterinary Hospital

**REFERRING VET**

Dr. Bouzaout

**INVOICE**

15920

**DATE**

05/07/26

**ULTRASONOGRAPHIC FINDINGS**

- Partially compensated stage C valvular disease.
- Severe left atrial enlargement.



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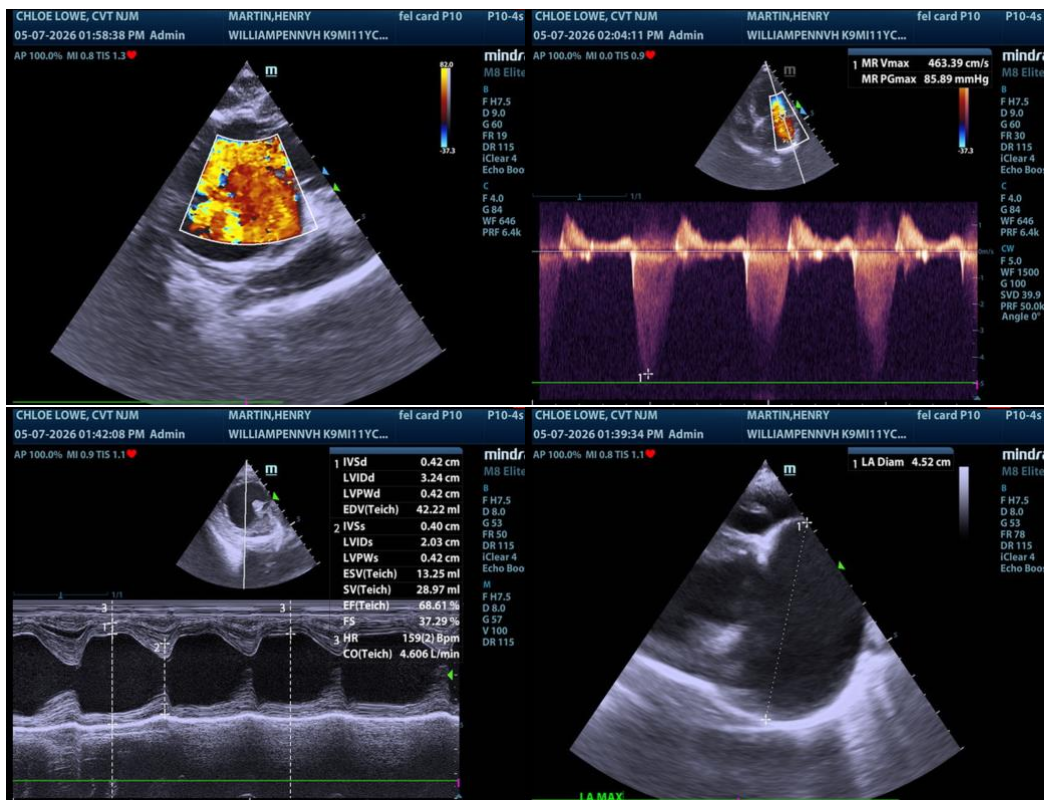
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The patient's demeanor rendered the echocardiogram fairly difficult. Torbutrol or gabapentin can be utilized for calming prior to echo procedures. No evidence of volume of passive congestion.

Recommend fairly aggressive treatment in this patient with careful attention to potential onset of pulmonary edema given the volume overload in the left heart. In addition to the current Lasix and Enalapril, recommend adding Pimobendan at 0.3 mg/kg BID and spironolactone 1-2 mg SID.

The heart is in a somewhat precarious state with volume overload and a heart that is working to compensate for the valvular insufficiency. Target respiratory rate is < 20 resp/minute after therapy. After initiating therapy, I recommend recheck on the clinical exam, BUN, Creatinine, USG, Chest radiographs & Blood pressure in 5-7 days. Recheck echo in 1 month. Earlier if clinical decompensation is occurring. I do not recommend anesthesia at this time until stabilization has occurred on the recommended medications. Repeat preanesthetic echo is ideal if anesthesia is eventually necessary.





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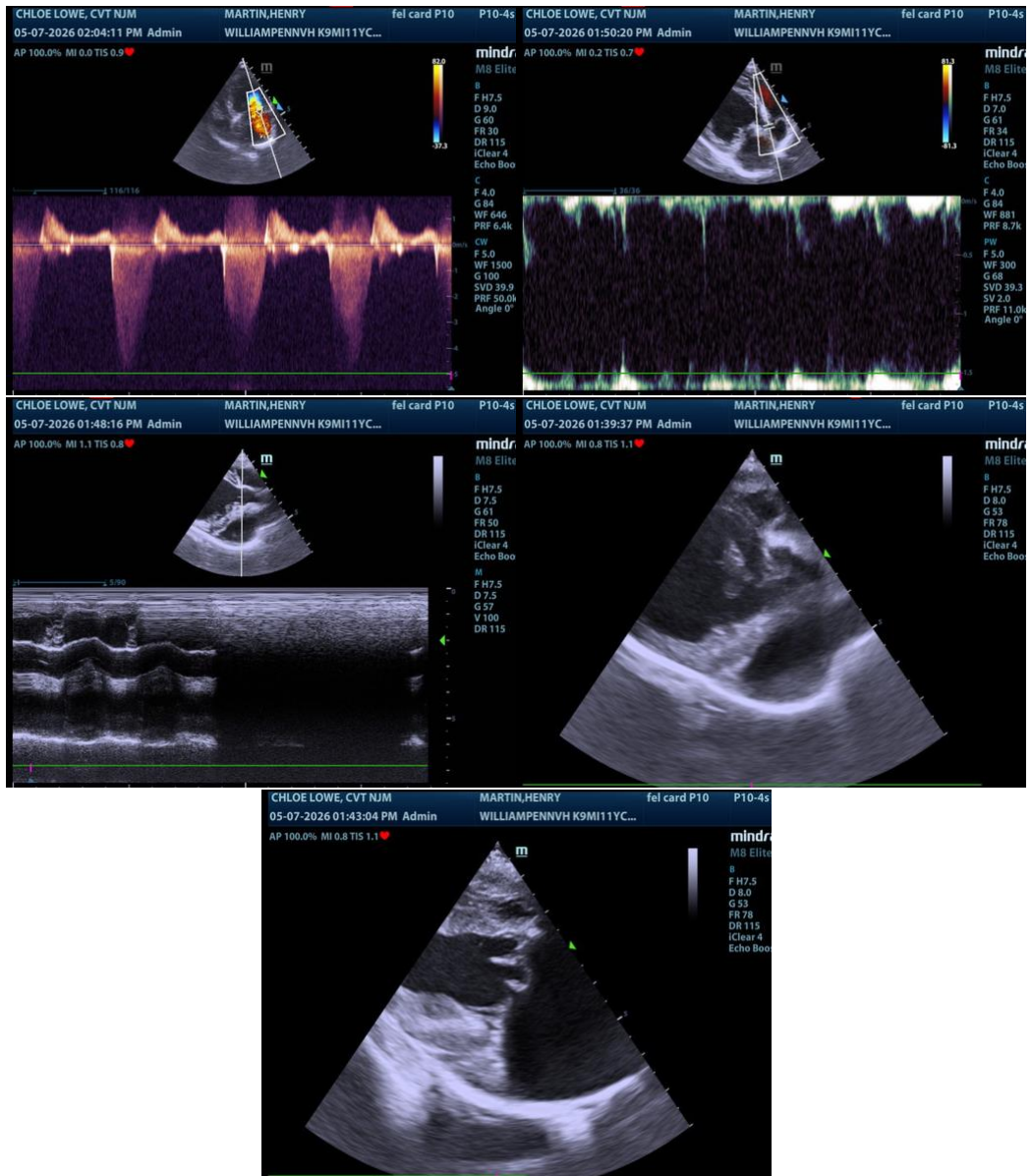
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP(CFM), Cert. IVUSS,

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