



**PATIENT**

Harley Beatty

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Neutered male

**AGE**

10 years

**WEIGHT**

8 lbs

**INTERPRETED BY**

Eric Lindquist, DMV,  
 DABVP, Cert. IVUSS,  
 CEO of SonoPath.com

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Heart and Paw Lake  
 Hopatcong

**REFERRING VET**

Dr. Verhalen

**INVOICE**

75313

**DATE**

5/11/26

**PRESENTING CLINICAL SIGNS**

History: Auscultated louder heart murmur grade VI. Previously grade 1-2 murmur; increased coughing episodes at rest with 3 brief collapses. No current meds.

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

The echocardiogram in this patient demonstrated enlarged **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. 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. Pulmonary edema lines were noted in the peripheral lung fields.

**E Wave Velocity 1.4**

<b>CANINE CARDIAC PARAMETERS</b>	<b>MR VMAX (m/s)</b>	<b>TR VMAX (m/s)</b>	<b>LA/AO</b>	<b>LA/AO (Heart Base)</b>	<b>FS (%)</b>	<b>EF (%)</b>	<b>EPSS (cm)</b>
<b>NORMAL PARAMETER</b>	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
<b>PATIENT</b>	5.17	3.3	1.7	1.93			NM
<b>CANINE CARDIAC PARAMETERS</b>	<b>HR (BPM)</b>	<b>AV VMAX (m/s)</b>	<b>PV MAX (m/s)</b>	<b>BODY WEIGHT</b>	<b>LA 2D short axis Base view (cm)</b>	<b>LVIDd Avg; 2D and m-mode short axis (cm)</b>	<b>LVIDs Avg; 2D and m-mode short axis (cm)</b>
<b>NORMAL PARAMETER</b>	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
<b>PATIENT</b>			0.59	8 lbs	3.23 max		

**ULTRASONOGRAPHIC FINDINGS**

Stage C1 valvular disease given the pulmonary edema lines, left atrial enlargement and elevated E Wave.



**PATIENT**

Harley Beatty

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Neutered male

**AGE**

10 years

**WEIGHT**

8 lbs

**INTERPRETED BY**

Eric Lindquist, DMV,  
DABVP, Cert. IVUSS,  
CEO of SonoPath.com

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Heart and Paw Lake  
Hopatcong

**REFERRING VET**

Dr. Verhalen

**INVOICE**

75313

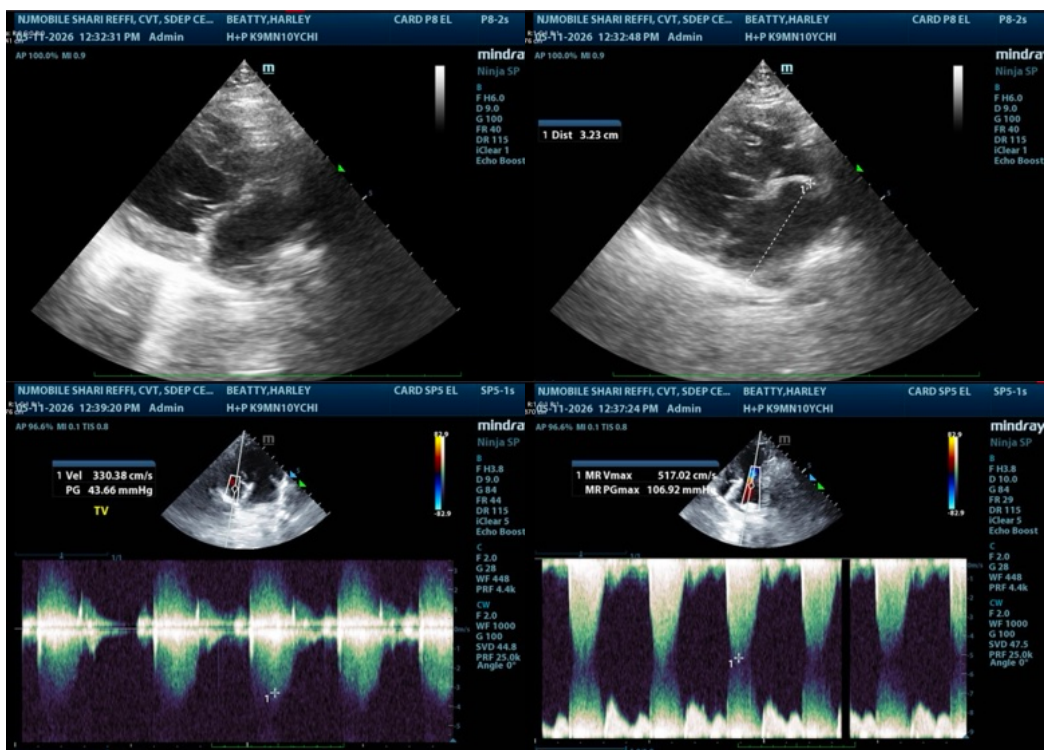
**DATE**

5/11/26

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

I recommend quadrotherapy in this patient with Pimobendan 0.3 mg/kg b.i.d., ace inhibitor at 0.5 mg/kg s.i.d. progressing to b.i.d. and Spironolactone at 1-2 mg/kg s.i.d. Lasix is recommended at 1-2 mg/kg b.i.d. Recheck echocardiogram is recommended in a month. Cough suppressant with Hycodan or similar can be considered. I cannot rule out a paroxysmal arrhythmia as the cause of syncope in this patient. EKG or Holter monitor may be appropriate.

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.





**PATIENT**

Harley Beatty

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Neutered male

**AGE**

10 years

**WEIGHT**

8 lbs

**INTERPRETED BY**

Eric Lindquist, DMV,  
DABVP, Cert. IVUSS,  
CEO of SonoPath.com

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Heart and Paw Lake  
Hopatcong

**REFERRING VET**

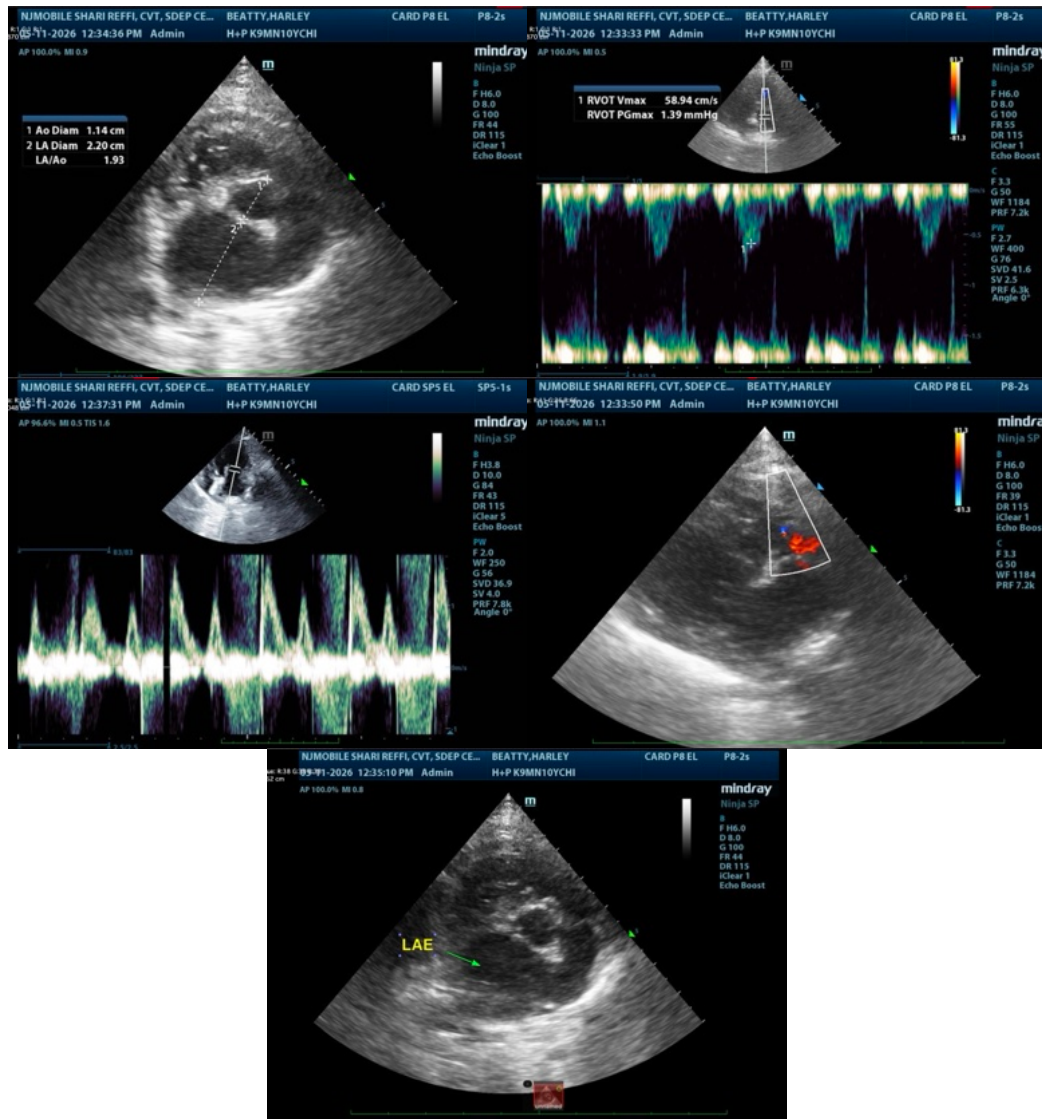
Dr. Verhalen

**INVOICE**

75313

**DATE**

5/11/26



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, Cert. IVUSS, CEO of SonoPath.com

Info@SonoPath.com