



**PATIENT**

Lady Lueth

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Spayed Female

**AGE**

10 Years

**WEIGHT**

8.1 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Alex McFeely

**HOSPITAL NAME**

Straley Vet Associates

**REFERRING VET**

Dr. Alex McFeely

**INVOICE**

46329

**DATE**

3/31/23

**PRESENTING CLINICAL SIGNS**

Presented earlier this week for coughing, syncopal episode suspected (falling over after coughing spell per owner), and dyspnea after coughing, weight loss, lethargy and exercise intolerance, hind limbs collapsing intermittently. On exam had dyspnea, mild tachypnea and cardiac murmur of 4/6 with tachycardia. Chest rads few days ago showed VHS of 12, very mild perihilar interstitial pattern and mild bronchointerstitial pattern and enlarged pulmonic vessels. Started on pimobendan 1.25mg BID, 12.5mg furosemide BID and 20mg doxycycline BID (concerned with cough and monocytosis on cbc). BP 175/99 (124) with oscillometric unit. Gave 0.7mg butorphanol IV for light sedation today. Not eating well since meds started (may be due to doxy admin.).

Abnormal PE/Chem/CBC/UA Results: Monocytosis on cbc, mildly incr ALT, stress hyperglycemia, mildly decr TP and rest normal, neg x 4 4Dx test.

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

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			2.5	2.3	45	--	0.1
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	--	0.9	0.6		3.5	3.2	

**Cardiac Presentation**

The echocardiogram for this patient presented excessive **left atrial size** expressed both in the LA/AO and LA max measurements Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. Prolapse of the anterior mitral valve leaflet noted. The **left ventricle** presented 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** insufficiency noted, velocity not evident. 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. Tachycardia with arrhythmogenic activity noted.



**PATIENT**

Lady Lueth

Aortic velocity is likely underestimated. Hepatic veins were dilated, indicative of emerging right-sided failure.

**SPECIES**

Canine

**ULTRASONOGRAPHIC FINDINGS**

- Mitral insufficiency with left-sided volume overload and tachycardia

**BREED**

Chihuahua

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Recommend quadrotherapy in this patient. Pimobendan at 0.3 mg/kg BID, Lasix 2-3 mg/kg BID, Spironolactone 1-2 mg/kg BID, ACE inhibitor 0.5 mg/kg SID eventually progressing to BID. Recommend cage rest over the next 48-72 hours and oxygen therapy as necessary. EKG indicated to assess for tachyarrhythmia. Prognosis is very guarded. Blood pressure measurements warranted. Target respiratory rate <25/min. Cough suppressant such as Hycodan would be indicated. Recheck echo in 2-4 weeks if this patient survives the immediate episode.

**AGE**

10 Years

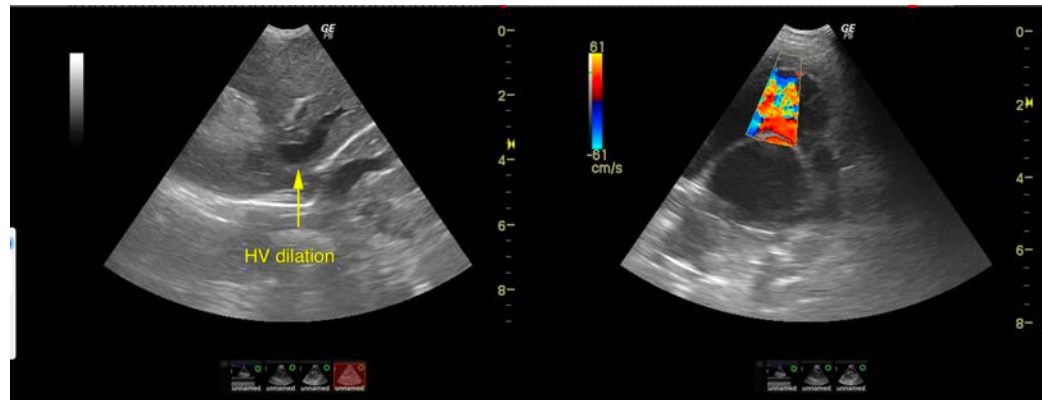
**WEIGHT**

8.1 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

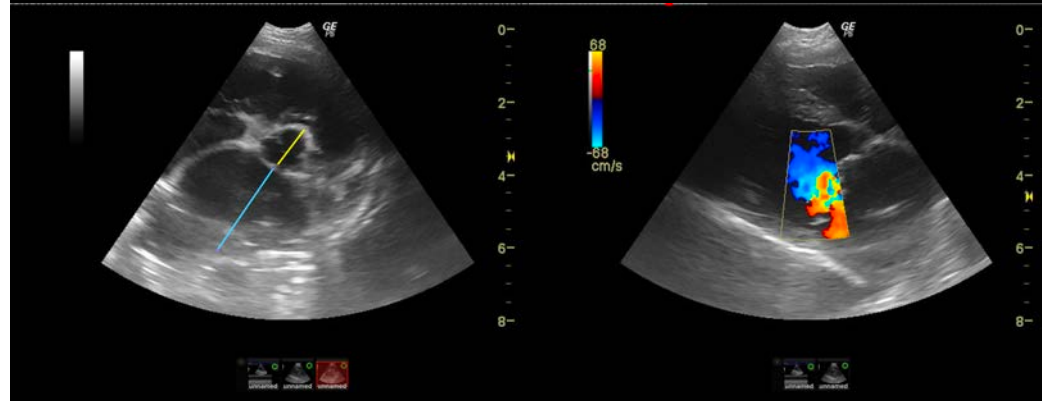


**IMAGING PERFORMED BY**

Dr. Alex McFeely

**HOSPITAL NAME**

Straley Vet Associates



**REFERRING VET**

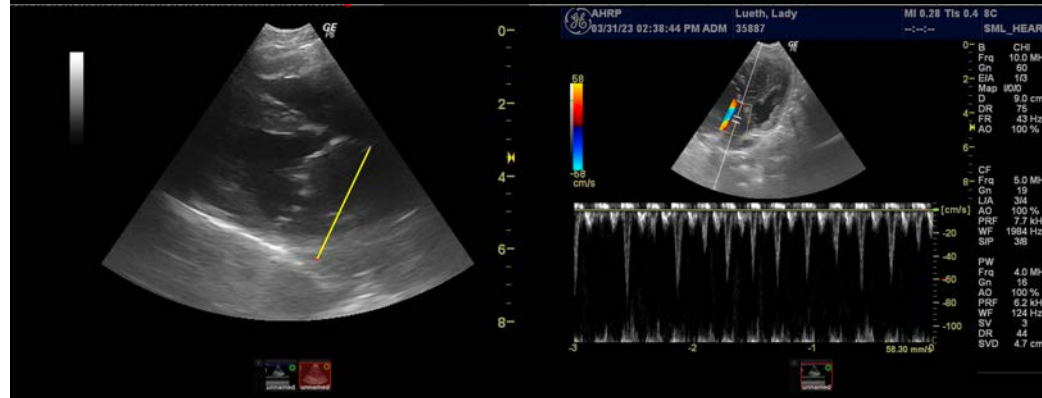
Dr. Alex McFeely

**INVOICE**

46329

**DATE**

3/31/23





**PATIENT**

Lady Lueth

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Spayed Female

**AGE**

10 Years

**WEIGHT**

8.1 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Alex McFeely

**HOSPITAL NAME**

Straley Vet Associates

**REFERRING VET**

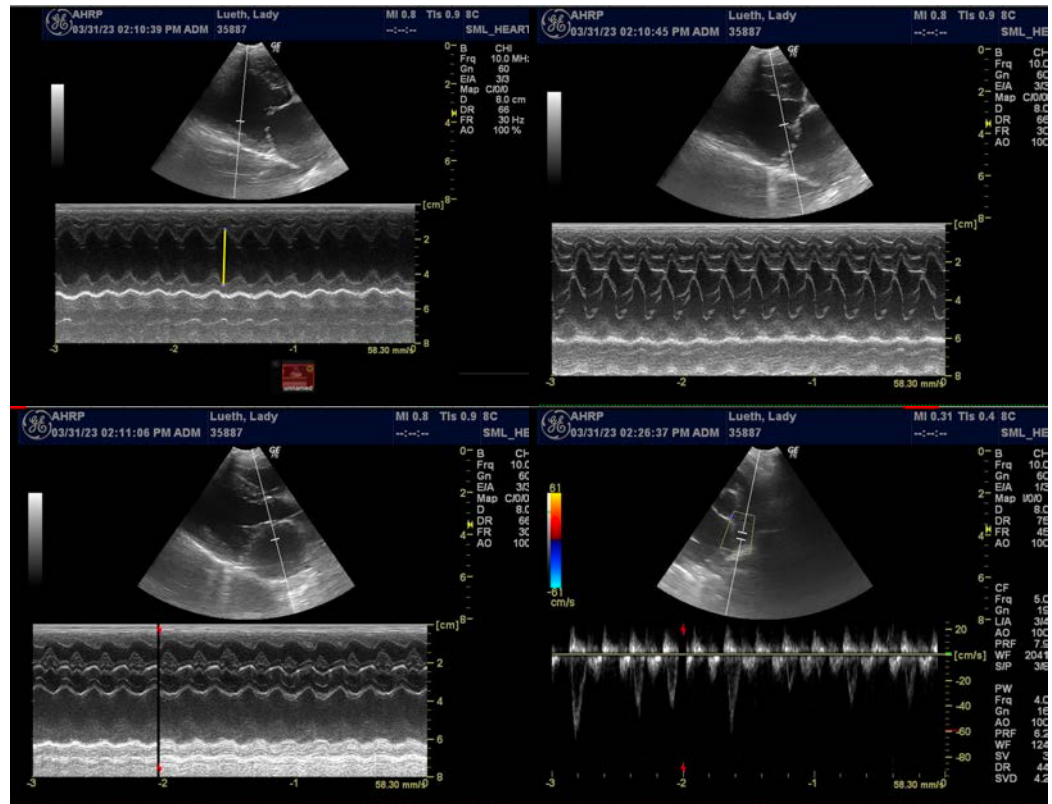
Dr. Alex McFeely

**INVOICE**

46329

**DATE**

3/31/23



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](mailto:info@SonoPath.com)