



PATIENT PRESENTING CLINICAL SIGNS

Zoey Young History: 3/6 heart murmur. Possible syncope. EKG: sinus rhythm with 2 single APCs. High sympathetic tone.

SPECIES BREED **ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

Canine

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. Prolapse of the anterior mitral valve leaflet is noted. Doppler indicated measurable insufficiency. Volume overload of the **left ventricle** was noted with non-compensatory contractility. 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.

Lhasa Apso Cross

SEX

Neutered male

AGE

12 years

WEIGHT

10.9 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Rodriguez

HOSPITAL NAME

Foxfield VS

REFERRING VET

Dr. Rodriguez

CANINE	MR	TR	LA/AO	LA/AO	FS	EF	EPSS
CARDIAC PARAMETERS	VMAX (m/s)	VMAX (m/s)	(Boon method)	(Heart Base; Swe)	(%)	(%)	(cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT	6.4		1.87	> 2.5	46	81	0.1
CANINE	HR	AV	PV	BODY WEIGHT	LA	LVIDd	LVIDs
CARDIAC PARAMETERS	(BPM)	VMAX (m/s)	MAX (m/s)		2D short axis Base view (cm)	Avg; 2D and m-mode short axis (cm)	Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	130	1.2		10.9 lbs	4.0 max	3.7	

ULTRASONOGRAPHIC FINDINGS

Mitral valve insufficiency with prolapse.
Advanced stage B2 valvular disease.

INVOICE

31186

DATE

6/22/22



PATIENT

Zoey Young

SPECIES

Canine

BREED

Lhasa Apso Cross

SEX

Neutered male

AGE

12 years

WEIGHT

10.9 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUS

IMAGING PERFORMED BY

Dr. Rodriguez

HOSPITAL NAME

Foxfield VS

REFERRING VET

Dr. Rodriguez

INVOICE

31186

DATE

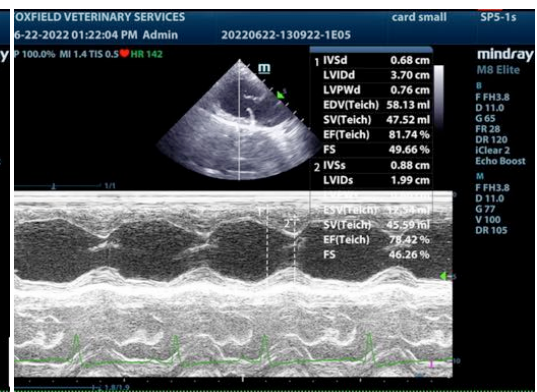
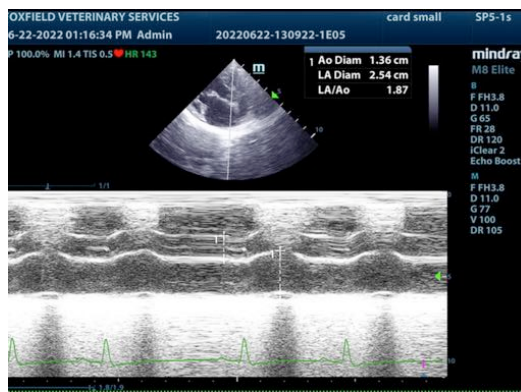
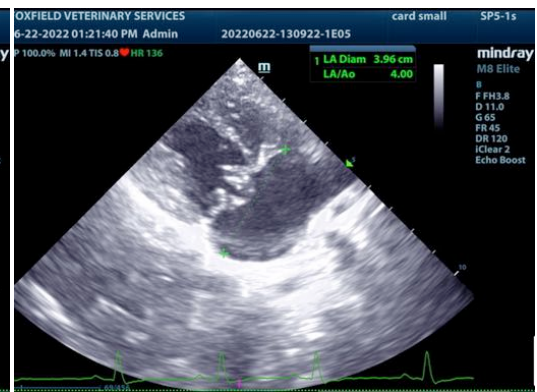
6/22/22

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

I am concerned for emerging left-sided congestive heart failure given the volume overload left ventricle and left atrium with slightly subnormal, non-compensatory contractility. I recommend volume reduction with the following protocol for B2+ valvular disease.

Pimobendan is recommended at 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 b.i.d.

The heart has some volume overload and 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

Zoey Young

SPECIES

Canine

BREED

Lhasa Apso Cross

SEX

Neutered male

AGE

12 years

WEIGHT

10.9 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Rodriguez

HOSPITAL NAME

Foxfield VS

REFERRING VET

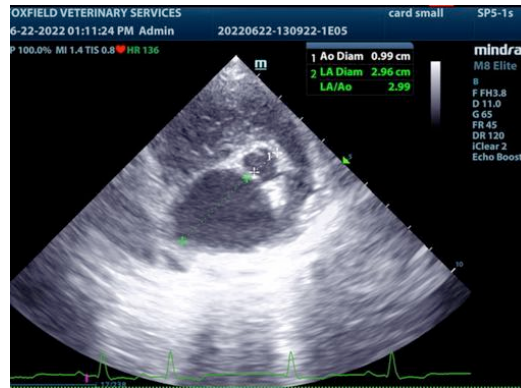
Dr. Rodriguez

INVOICE

31186

DATE

6/22/22



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