



PATIENT

Luna Benham

SPECIES

Canine

BREED

Chihuahua

SEX

Spayed Female

AGE

13 Years

WEIGHT

8.9 Pounds

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Holly, LVT

HOSPITAL NAME

All Pets Medical

REFERRING VET

Dr. Agnes Rupley

INVOICE

17152

DATE

9/2/22

PRESENTING CLINICAL SIGNS

PRESENTED FOR: Dental and canine tooth extraction. Patient presented elsewhere for a fractured canine tooth. Pimobendan was begun there based on new heart murmur and enlarged heart based on rad. REPORTED SYMPTOM: Increased respiratory rate. Resting heart rates are approx 80. VITALS: 89 pounds Temperature: 101.2 Heart Rate: 96 bpm Respiratory Rate: 25 bpm Mucous Membrane Color: pink Capillary Refill Time: <2 CURRENT MEDICATIONS: Trifexis Bravecto Pimobendan 1.25 mg: 1 tablet 2x day only been on for a week or so EXAM FINDINGS: Grade IV/VI holosystolic left apical heart murmur. Increased RR. No crackles or wheezes ausculted. No nasal discharge. Otitis externa. MLP LAB RESULTS: Pending. ASSESSMENT AND PLAN: Started furosemide and enalapril. Plan to perform COHAT under anesthesia with Convenia injection and IV fluids at half rate however will WAIT UNTIL SLEEPING RESPIRATORY RATES ARE LESS THAN 40 BPM.

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	5.0	--	1.2	1.3	45	--	0.2
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				
PATIENT	--	1.20	.70	--	2.71	2.5	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. Slight prolapse of the anterior mitral valve leaflet noted. Doppler indicated measurable insufficiency. 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** 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



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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.

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ULTRASONOGRAPHIC FINDINGS

- Mitral insufficiency
- Stage B-1 valvular disease

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Chihuahua

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No overt contraindication to anesthetic procedure. No volume overload or cardiac dysfunction noted.

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Spayed Female

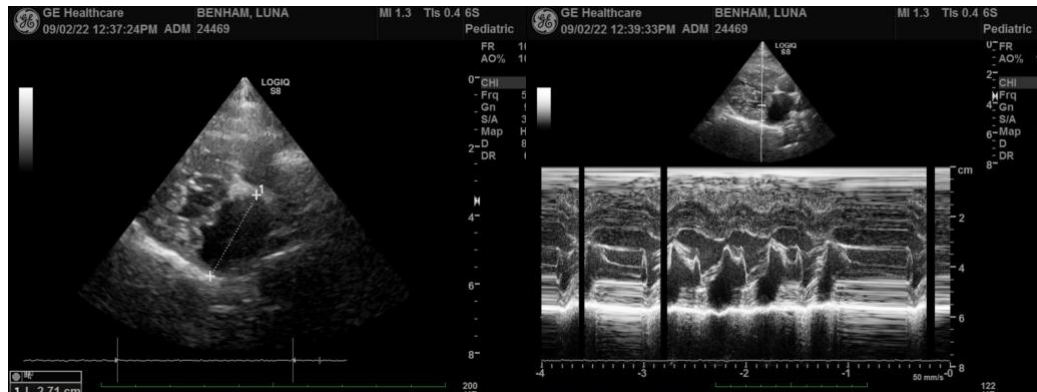
The heart is stable without clinical disease. No overt contraindication for anesthesia of brief to moderate duration. I suggest Torbutrol premed, Propofol induction, Isoflor maintenance or similar protocol if anesthesia is desired. Blood pressure recommended if not already performed and target white coat negative systolic pressure of < 160 mmHg. If higher than this ACE-inhibitor is suggested to reach this level. Recheck echocardiogram is recommended in 6 months, earlier if murmur grade increases or clinical signs initiate.

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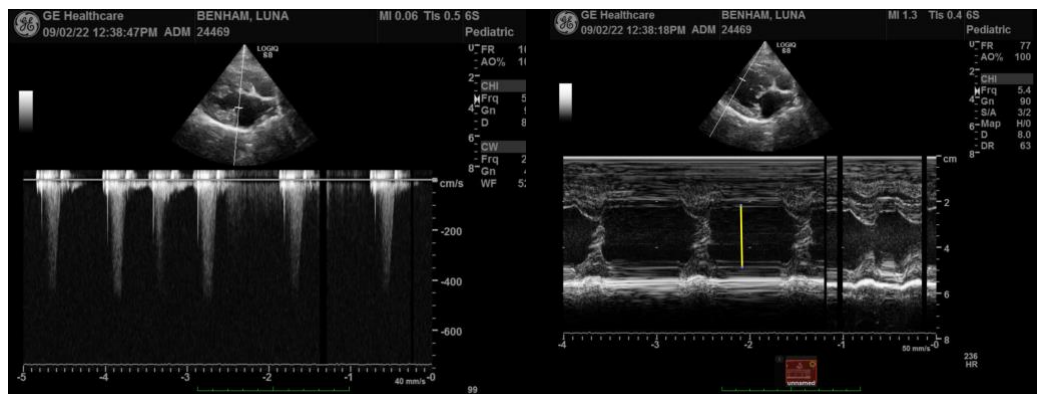


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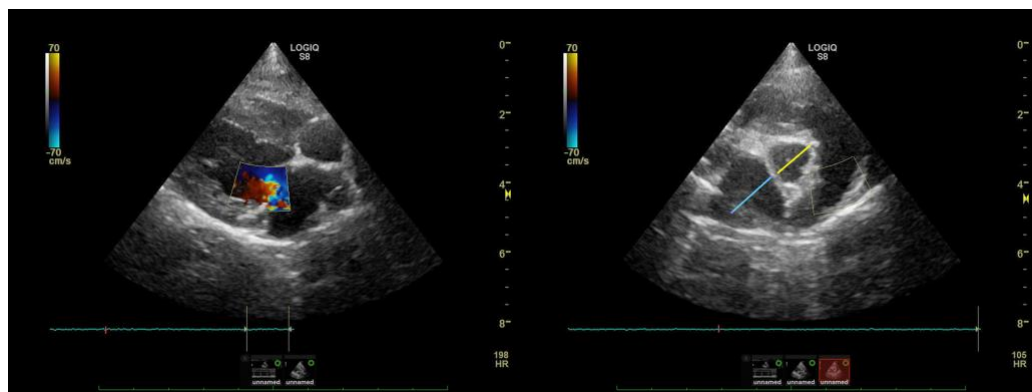
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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, Cert. IVUSS, CEO of SonoPath.com

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