



PATIENT PRESENTING CLINICAL SIGNS

Milo Davidson

History: Milo presented today for cardiac diagnostic work up because he has had an intermittent cough that has worsened over the past year, In April of 2021 he had a grade 3/6 cardiac murmur and by September 2021 his murmur had increased in intensity to a 4/6 and he was coughing every day. He was given 1.4 mg Butorphanol IV to lightly sedate, but it was necessary to give 10 mg of alfaxalone IV shortly thereafter to complete the cardiac ultrasound exam. His BP today was 125 mmHg using doppler in his FL and 210 mmHg in his hindlimb.

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: mild hyperalbuminemia 4.9, mild stress hyperglycemia 114, mild hyperkalemia 6, stress leukogram and 4Dx = NEG x 4

BREED

Chihuahua Mix

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

SEX

Neutered male

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 leaflet was 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 (pprox..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.

AGE

13 years

WEIGHT

15.8 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. McFeely

HOSPITAL NAME

Straley VA

REFERRING VET

Dr. McFeely

INVOICE

96910

DATE

3/15/22

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			1.5	1.7			0.2
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	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				15.8 lbs		3.3	



PATIENT **ULTRASONOGRAPHIC FINDINGS**

Milo Davidson Stage B2 valvular disease.

SPECIES **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Canine

The cough is likely cardiogenic; however, concurrent respiratory component may be present as the left atrial excessive size is fairly mild. I recommend Lasix trial at 1-2 mg/kg b.i.d., Pimobendan at 0.3 mg/kg b.i.d. Recheck echocardiogram is recommended.

BREED

Chihuahua Mix

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

AGE

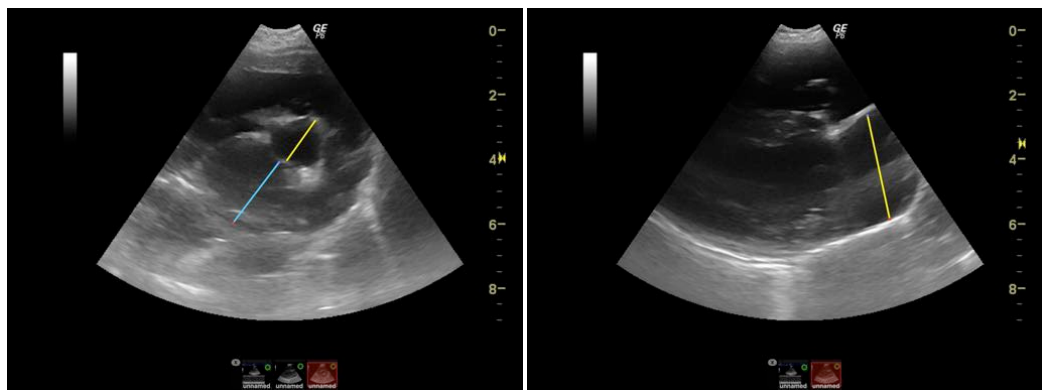
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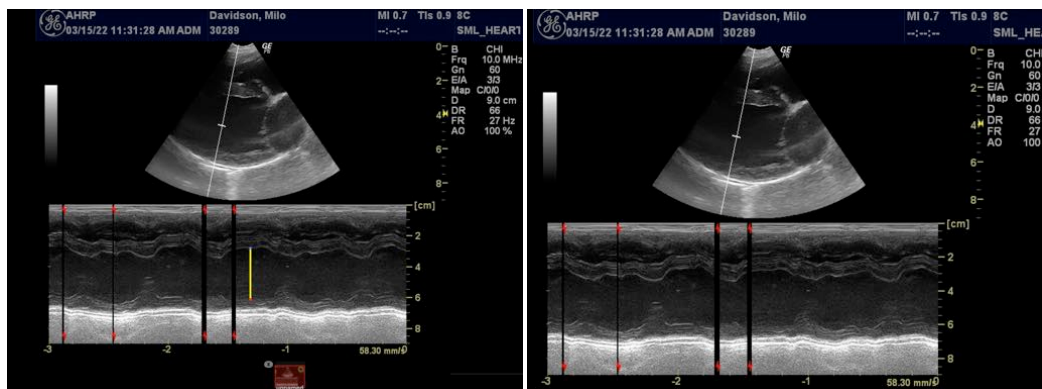
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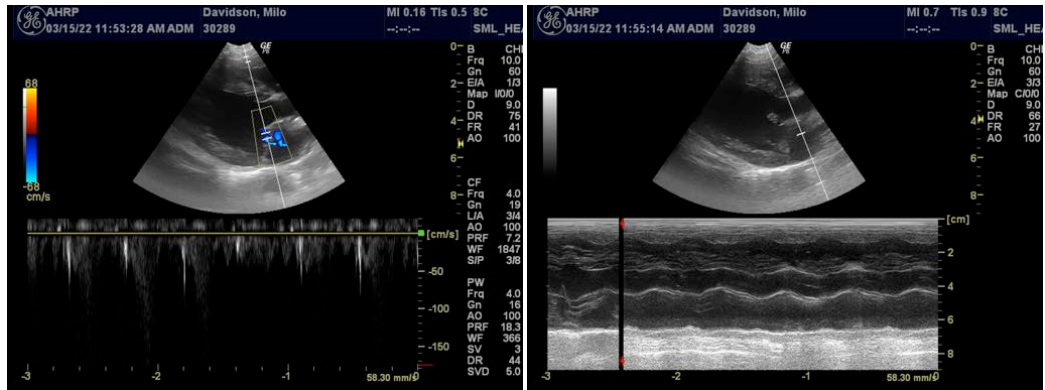
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
info@SonoPath.com