



**PATIENT PRESENTING CLINICAL SIGNS**

Canzo Ferrara Cardiac workup.

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

Canine The echocardiogram in this patient demonstrated normal **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 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. Arrhythmogenic activity was noted during the echocardiogram. This is consistent with the EKG report.

**BREED**

Chihuahua

**SEX**

Neutered male

**AGE**

11 years

**WEIGHT**

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Jessica Miller, RDMS

**HOSPITAL NAME**

Dr. Brenda King

**REFERRING VET**

Dr. King

**INVOICE**

97856

**DATE**

3/28/22

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	6.2		1.6	1.7			0.16
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			1.1		2.93		

**ULTRASONOGRAPHIC FINDINGS**

Mitral insufficiency.  
Mild left atrial enlargement.  
Stage B2 valvular disease.



**PATIENT**

Cenzo Ferrara

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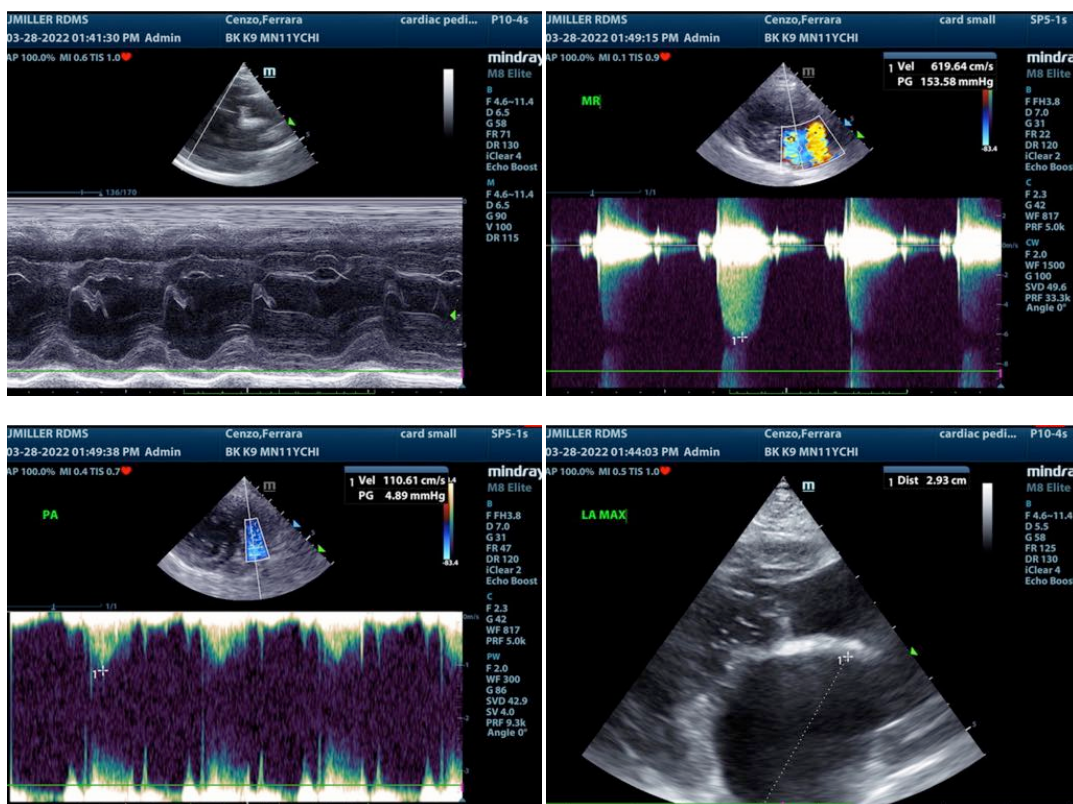
**DATE**

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

I recommend initiating Pimobendan in this patient at 0.3 mg/kg b.i.d. If the systolic pressure is greater than 160 then ace inhibitor therapy is warranted. If any coughing is present then low-dose Lasix can be considered. The left atrial stretch owing to volume overload may be playing a role in the arrhythmogenic activity. However, the patient does not appear to be in complete left-sided congestive heart failure; however, the left atrium was enlarged in all views.

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**

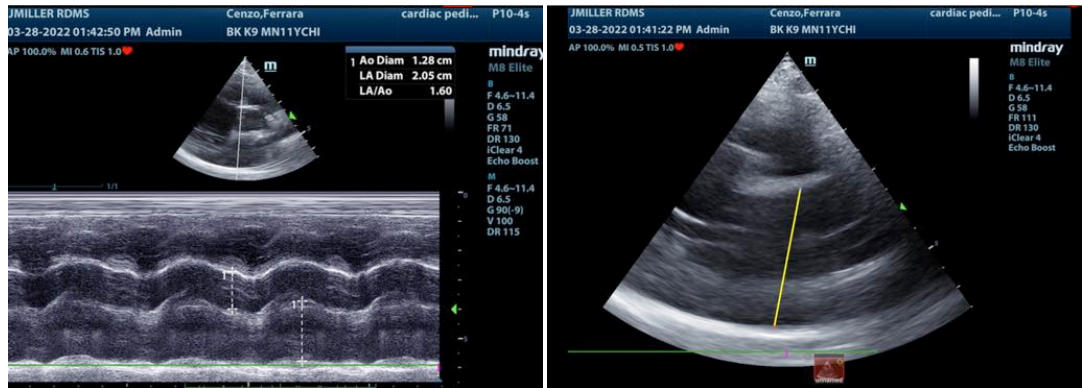
Cenzo Ferrara

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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.

**AGE**

11 years

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

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