


**PATIENT**

Pixie Ahrens

**PRESENTING CLINICAL SIGNS**

History of chronic cough - diagnosed as collapsing trachea- 4/6 murmur detected concern as source of cough, heart or lungs. Started on furosemide and hycodane 3 days ago

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: No abnormalities

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

BREED	CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
Chihuahua Mix								
SEX	NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
FS	PATIENT	5.6	2.6	1.23	1.33	39.4	75	0.2
AGE	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)
14								
WEIGHT	NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
3.6kg	PATIENT	141	1.2	0.8		2.6	2.34	

**INTERPRETED BY**

 R. McKenzie Daniel,  
 DVM, DABVP  
 (Canine and Feline)

**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. The cranial and caudal mitral valve leaflets presented vegetative thickening (anterior greater than posterior) consistent with endocardiosis. Doppler indicated measurable eccentric insufficiency. The left ventricle presented thicknesses with linear contour and was not dilated nor restricted. Normal measured LVOT velocity was present. 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 mild thickening with mild TR on Doppler. 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). Normal measured RVOT velocity was present. 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.

**IMAGING PERFORMED BY**

Dr. Belan

**HOSPITAL NAME**

Cambrian AH

**REFERRING VET**

Dr. Sharma

**INVOICE**

13317ag

**DATE**

03/28/2023

**ULTRASONOGRAPHIC FINDINGS**

- Chronic mitral valve disease (ACVIM B1), potential minor septal mitral valve leaflet prolapse.
- Mild TR-estimated pulmonary pressure gradient not consistent with overt clinical pulmonary hypertension.



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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The lack of LA enlargement or evidence of left heart volume overload indicate that the risk of complication secondary to MR is relatively low. Given the lack of left heart enlargement not consistent with congestion as well as no evidence of pulmonary hypertension the chronic cough in this patient is noncardiogenic in origin. Consideration for primary upper/lower airway disease is indicated. No indication for cardiac medications.

As needed respiratory support would be appropriate. Prognosis is highly variable and serial sonographic monitoring is required for further prognosis. Recheck echocardiogram recommended in 6 months, sooner if clinically indicated. Screening BP recommended to assess for evidence of hypertension.

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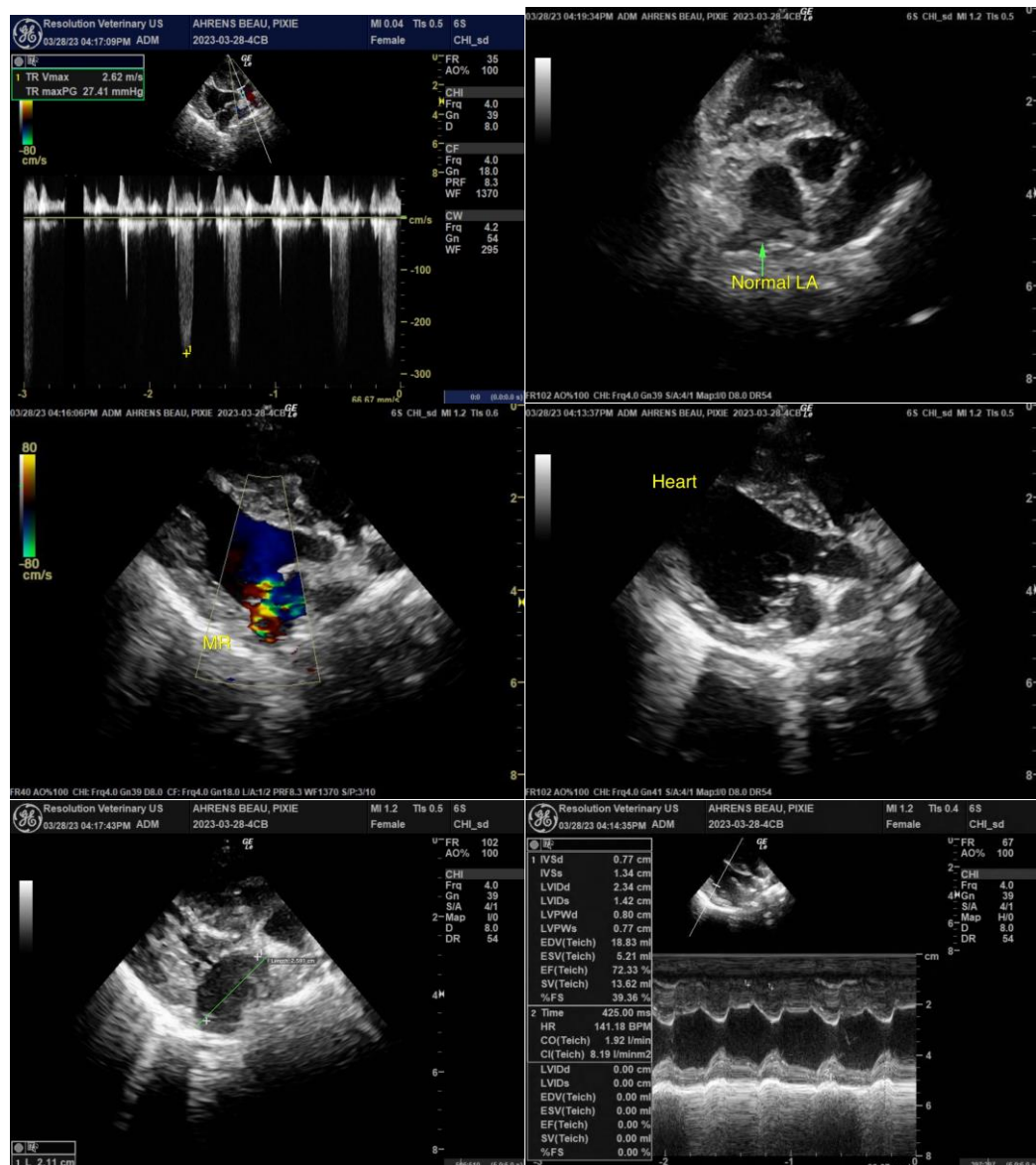
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not



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visible in the image/video clips provided.

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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.

**SPECIES**

Canine

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**BREED**

Chihuahua Mix

**SEX**

FS

**AGE**

14

**WEIGHT**

3.6kg

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