



PATIENT

Lucky Young

SPECIES

Canine

BREED

Cairn Terrier Mix

SEX

Neutered Male

AGE

9Y, 2M

WEIGHT

10.6lbs

PRESENTING CLINICAL SIGNS

-Grade 4/6 Heart murmur noted on Exam 5/12/26
 - Cardiac ultrasound recommended due to progression of heart murmur (grade 2/6 to 4/6) and previous elevated ProBNP (960, normal <900)
 - - Heart Murmur Grade 2/6 noted on 01/13/2025
 -chronic soft stool
 -hypertensive prior to Cardiac U/S: #2 BP Cuff
 L rear hock
 1. 194/97 (144)
 2. 186/100 (139)
 3. 183/100 (148)
 Abnormal PE/Chem/CBC/UA Results: -2+ proteinuria 5/14/26 -29.1 RETIC HGB 5/14/26 - chemistry wnl 5/14/26 - Hematocrit (HCT): 55.83 % (elevated) on 01/13/2025, was 60.44 % (elevated) on 08/19/2021 - Hemoglobin (HGB): 18.9 g/dl (elevated) on 01/13/2025, was 18.2 g/dl (elevated) on 08/19/2021 - Eosinophil %: 0.0 % (low) on 01/13/2025, was 0.2 % (low) on 08/19/2021 - Alkaline Phosphatase (ALKP): 127.0 U/L (within normal limits) on 01/13/2025, was 19.0 U/L (low) on 08/19/2021 - Results of most recent diagnostic imaging or tests: - Heartworm/Lyme/Ehrlichia/Anaplasma SNAP Test (01/13/2025): Negative - Fecal Ova and Parasite (01/17/2025): None Seen

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT			NM	2.0	55	86	0.3
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (lbs)	LAD LA MAX 4 Chamber	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	NM	1.1	0.7	10.6	3.5	3.0	

INTERPRETED BY

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

IMAGING PERFORMED BY

Joanne Goodman

HOSPITAL NAME

Evendale-Blue Ash Pet Hospital

REFERRING VET

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Cardiac Presentation

The echocardiogram in this patient demonstrated moderate increased **left atrial** dimension with mild interatrial septal deviation based on 2 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented thickening consistent with valvular prolapse/endocardiosis. Doppler indicated moderate to significant eccentric MR. No MR velocity. The **left ventricle** presented thicknesses with linear contour and mild to moderate increased LV dimension. 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

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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 mildly thickened with mild TR of 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). No visible **pericardial** or free pleura fluid was noted. No echographically detectable evidence of cardiac / pericardial tumors was visible.

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease with valvular prolapse (ACVIM B2)
- Mild tricuspid insufficiency - no evidence of clinical pulmonary hypertension.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency. The left atrial enlargement implies that the risk of complication secondary to mitral valve insufficiency is elevated, yet overall, the heart appears stable. No other clinical issues such as LV systolic dysfunction or clinical pulmonary hypertension. Pimobendan 0.3 mg/kg BID is recommended. No overt indication for additional medication. Prognosis is considered variable and sonographic monitoring is recommended. Recheck echo cardiogram is suggested in 6 months, sooner if clinical signs arise. Anesthetic risk is moderate with possible mild reduction once on Pimobendan for 3-5 days. If required, the following protocol is recommended with judicious IV fluid administration and clinical monitoring:

Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.



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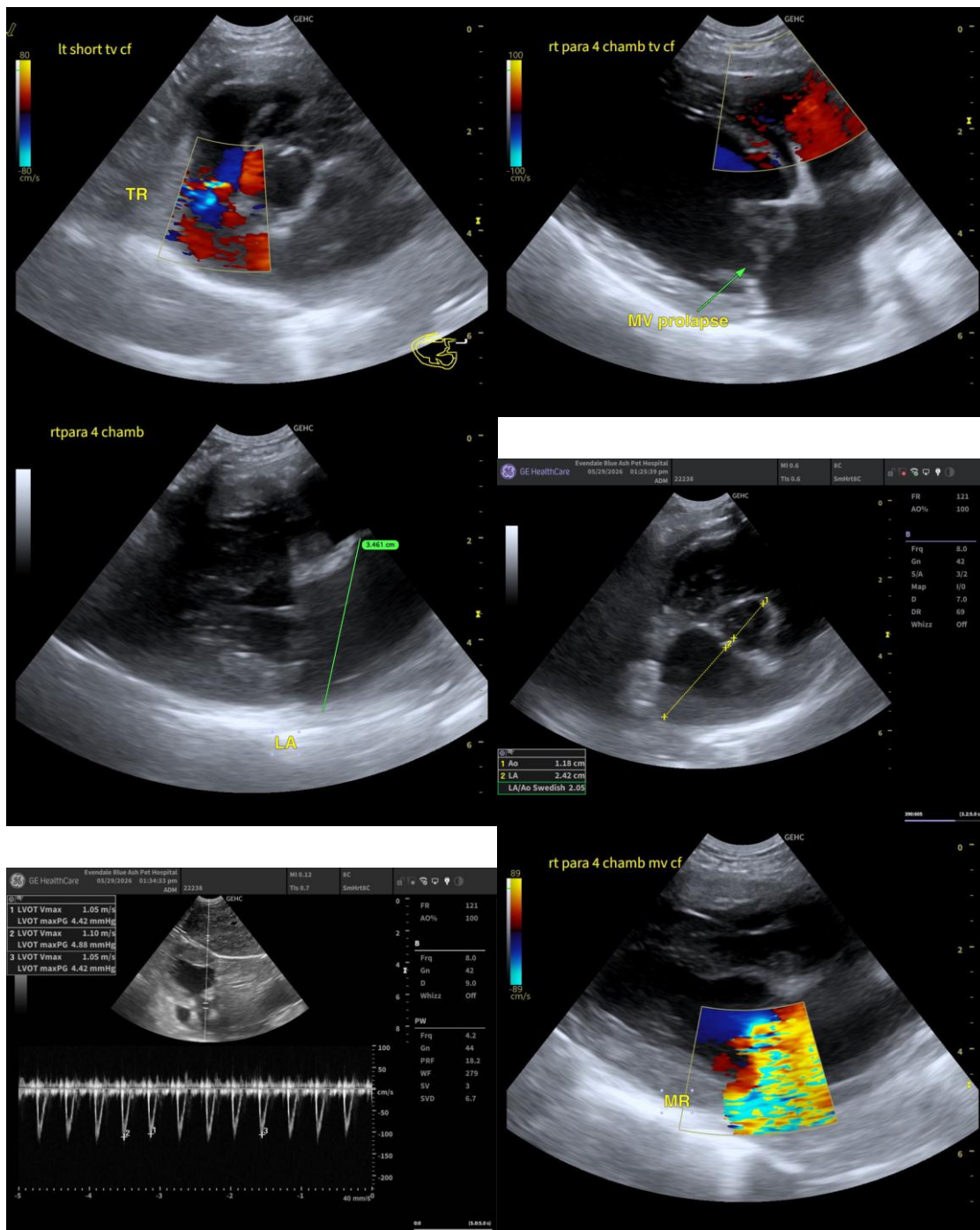
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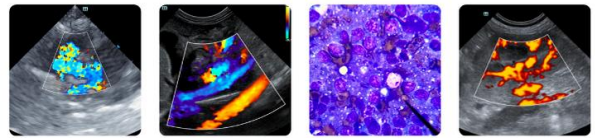
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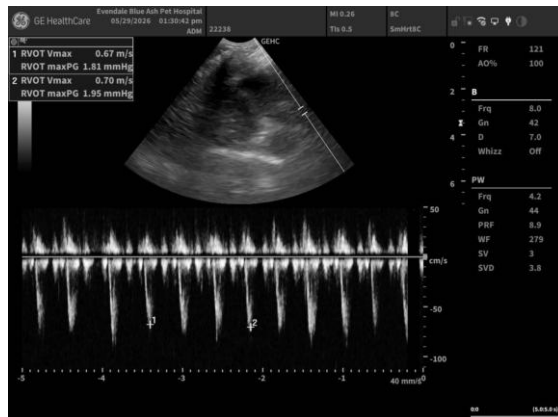
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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