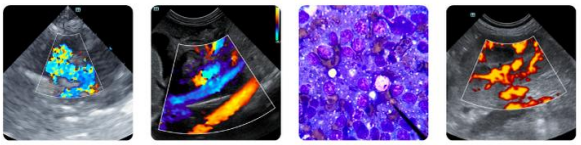

SonoPath www.thefocalzone.com info@thefocalzone.com 289.808.2608

PATIENT

Millie Tal-Gavriel

SPECIES

Canine

BREED

Chihuahua

SEX

FS

AGE

12yr

WEIGHT

3.4kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

Preston AC

REFERRING VET

McCausland

INVOICE
23230

DATE
12/15/2025

PRESENTING CLINICAL SIGNS

Findings: coughing heart murmur Current Medications (Fluticasone) Administer one puff into chamber every 12-24 hours for management of inflammatory airway disease. Allow 7-10 breaths from chamber for each treatment.

Abnormal PE/Chem/CBC/UA Results: Thoracic Radiographs: Performed without sedation. Findings include a borderline enlarged heart, thickened small airways (bronchial pattern), possible tracheal narrowing, and a possible soft tissue opacity in the mediastinum potentially compressing the airways. The trachea may also have a slight deviation. Overall, the findings are not definitive for a single cause. Primary Question to Be Answered in This Exam DX and TX

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	5.8	--	--	1.3	45	78	0.2
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (kg)	**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	129	3.5	0.9	--	1.7	1.8	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal left atrial size based on 2 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal mitral valve leaflets presented mild thickening consistent with mild endocardiosis. No evidence of valvular prolapse. Doppler indicated measurable mild to moderate eccentric 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. Elevated measured LV outflow velocity with aortic insufficiency on Doppler. 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). Normal RVOT velocity. No visible pericardial or free pleura fluid was noted.

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No echographically detectable evidence of infiltrative disease was visible. The cranial mediastinum and pericardial regions were free of masses in the visible window. Brief hepatic assessment revealed no evidence of hepatic congestion or cranial abdomen ascites. No evidence of arrythmia.

ULTRASONOGRAPHIC FINDINGS

Primary

- Compensated mitral valve insufficiency (B1)
- Normal RA / RV and pulmonary artery dimension
- Elevated measured LV outflow velocity with concurrent aortic valve insufficiency

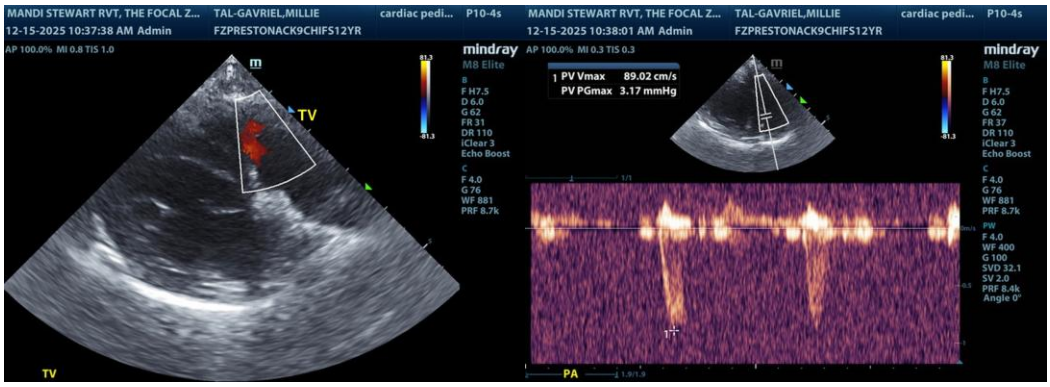
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The lack of LA enlargement indicates the current and future risk of complication secondary to MR is low. The murmur in this patient may be a combination of MR, elevated measured LV outflow velocity and aortic valve insufficiency. The elevated measured LV outflow velocity is non-specific without evidence of concurrent LV hypertrophy which would suggest significant elevated LV outflow pressure or stenosis. The lack of right chamber or pulmonary artery enlargement is not overtly consistent with significant or severe pulmonary hypertension.

The overall heart appears to be compensated and not overtly consistent with a cardiogenic cause of the patient's respiratory signs, indicating likely primary lower airway disease in conjunction with the thoracic radiographic findings. No obvious indication for cardiac medication. The cardiac prognosis remains variable and sonographic monitoring is advised.

Recheck echo recommended in 6 months, sooner if clinically indicated. Concurrent respiratory support and therapy for chronic lower airway disease is indicated. If anesthesia is required, the following protocol is suggested.

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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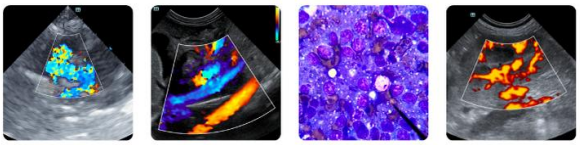

Clinical Sonography & Telecytology
Educational Teleconsultation Services™

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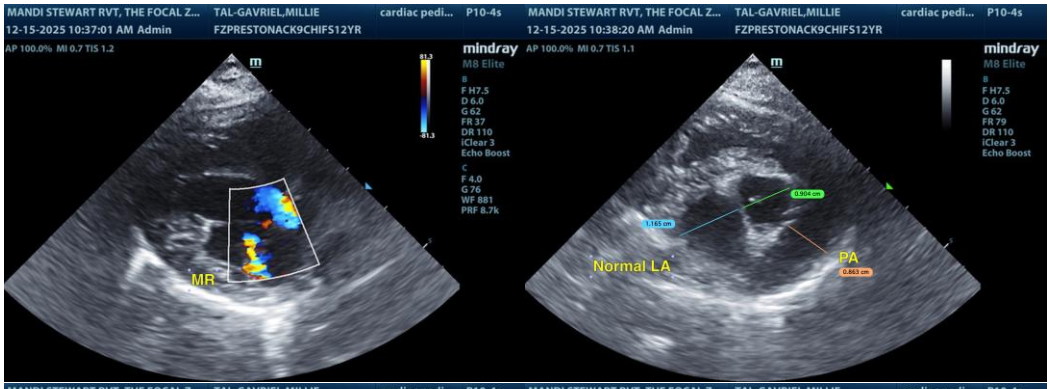

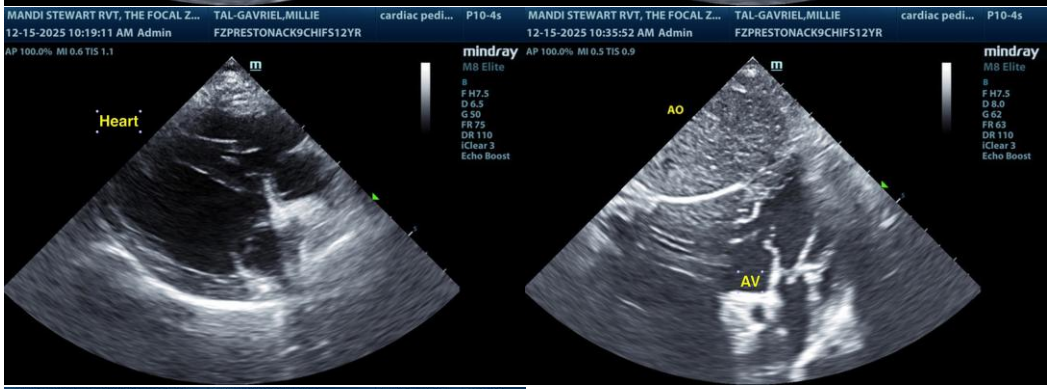

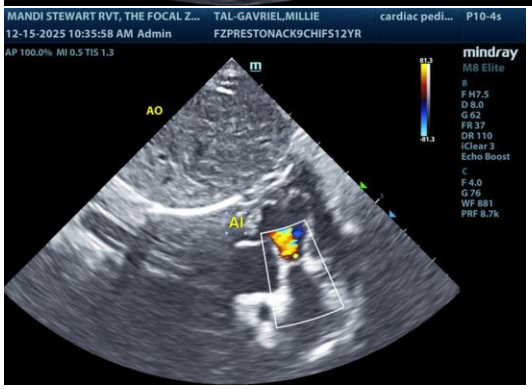

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
info@sonopath.com