



PATIENT

Reba Chervenack

SPECIES

Canine

BREED

Puggle

SEX

FS

AGE

14 years

WEIGHT

29.8 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

ACC Landing

REFERRING VET

Dr. Casulli

INVOICE

13899

DATE

5/18/22

PRESENTING CLINICAL SIGNS

Chronic cough, no murmur, possible perihilar inflammation, possible bulla. R/o Pulmonary hypertension vs chronic bronchitis

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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	<1.3	28-40	40-100	<0.6
PATIENT	5.1	1.5	1.2	1.1	52.8	85.5	0.21
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	125	1.5	1.4		2.9	2.6	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size and structure. Chamber volume and blood echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented minor irregular age-related changes suggestive of mild endocardiosis with adequate extension in systole and union in diastole. Mild MR was present on doppler. The **left ventricle** presented normal free wall and septal thicknesses with linear contour. The **myocardium** presented some echogenic remodeling consistent with expected age-related change. **Contractility** of the ventricular walls was adequate and in normal range for this breed and patient size. The **left ventricular outflow** tract demonstrated normal laminar flow with subjectively unremarkable structure. Subjective assessment of the **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated concurrent mild irregular changes with potential for mild septal leaflet prolapse. Mild TR was present on doppler. The **right ventricle** was of normal size (1/3 diameter of LV), echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). No dilation due to heartworm disease, cuor pulmonale, stenosis, or pulmonic hypertension was noted. No visible **pericardial** or free pleural fluid was noted. The **mediastinum** was free of masses in the visible window.

ULTRASONOGRAPHIC FINDINGS

- Overtly normal cardiac structure and function for age
- Mild MR/TR



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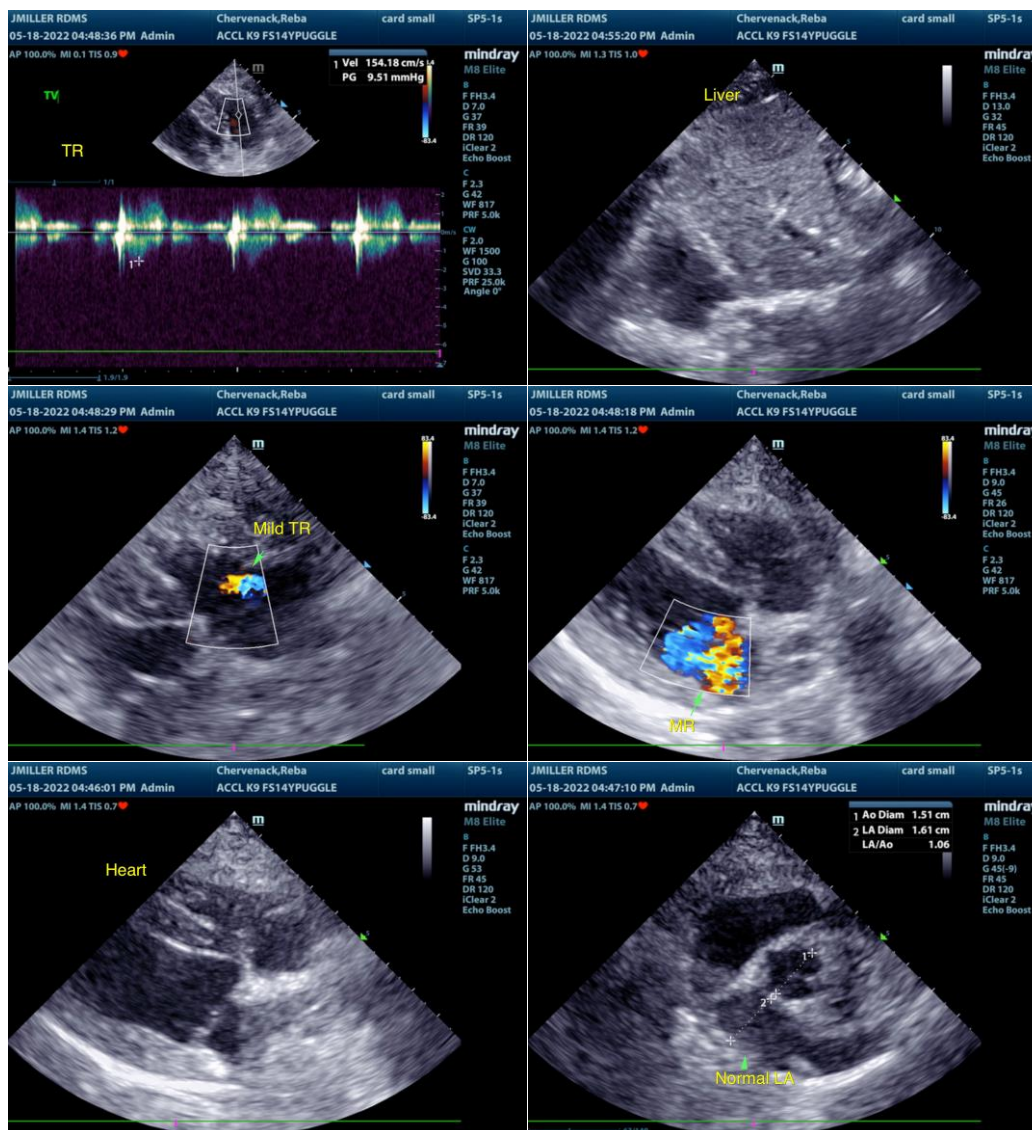
DATE

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No overt evidence of significant structural or functional cardiomyopathy was noted, including no evidence of left or right heart chamber enlargement, LV systolic dysfunction, or evidence of clinical pulmonary hypertension (estimated pulmonary pressure gradient <20 mm Hg).

Given this cardiac presentation, noncardiogenic cough is most likely. No Indication for cardiac medications at this stage. Conservative monitoring is recommended with recheck echocardiogram suggested in 6 months, sooner if clinical signs suggestive of heart disease arise or if progressive murmur is noted.





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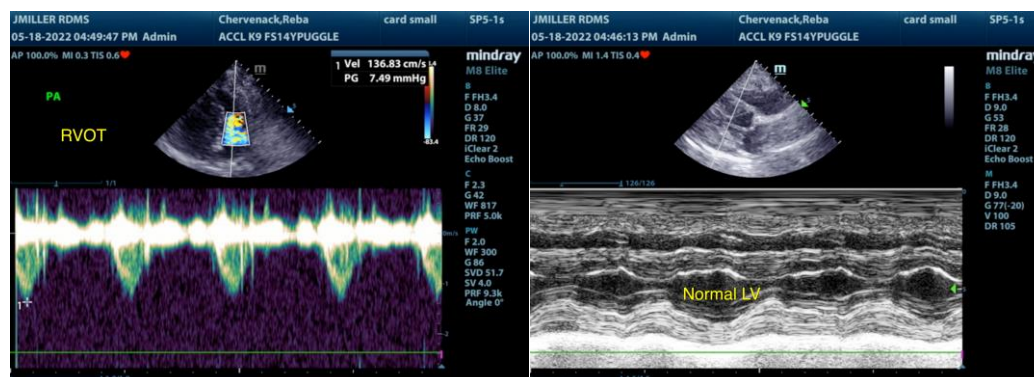
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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