



PATIENT

Roja Hardinge

SPECIES

Canine

BREED

Pitbull

SEX

MN

AGE

9 years 7 months

WEIGHT

83.5 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton Vet

REFERRING VET

Dr. Verhalen

INVOICE

13971

DATE

6/1/22

PRESENTING CLINICAL SIGNS

-Chronic coughing. Bronchial pulmonary pattern on radiographs. Rounding to the R cardiac silhouette. Improved slightly on Temaril P. Current meds: Gabapentin

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

| CANINE | MR | TR | LA/AO | LA/AO | FS | EF | EPSS |
|---------------------------|----------------------|-----------------------------------|----------------------------------|----------------------------|---|---|---|
| CARDIAC PARAMETERS | VMAX (m/s) | VMAX (m/s) | (Boon method) | (Heart Base; Swe) | (%) | (%) | (cm) |
| NORMAL PARAMETER | 4.5-5.5 | <2.7 | 1.3 | <1.3 | 28-40 | 40-100 | <0.6 |
| PATIENT | | | 1.3 | 1.35 | 33.3 | 65.6 | 0.42 |
| CANINE | 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) |
| CARDIAC PARAMETERS | | | | | | | |
| NORMAL PARAMETER | 50-100 | 0.7-1.7 | 0.7-1.6 | | | | |
| PATIENT | 135 | 1.2 | 0.8 | | 4.1 | 4.2 | |

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. Minor centralized MR was present. 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. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. Mild TR was present on doppler. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** 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. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window.



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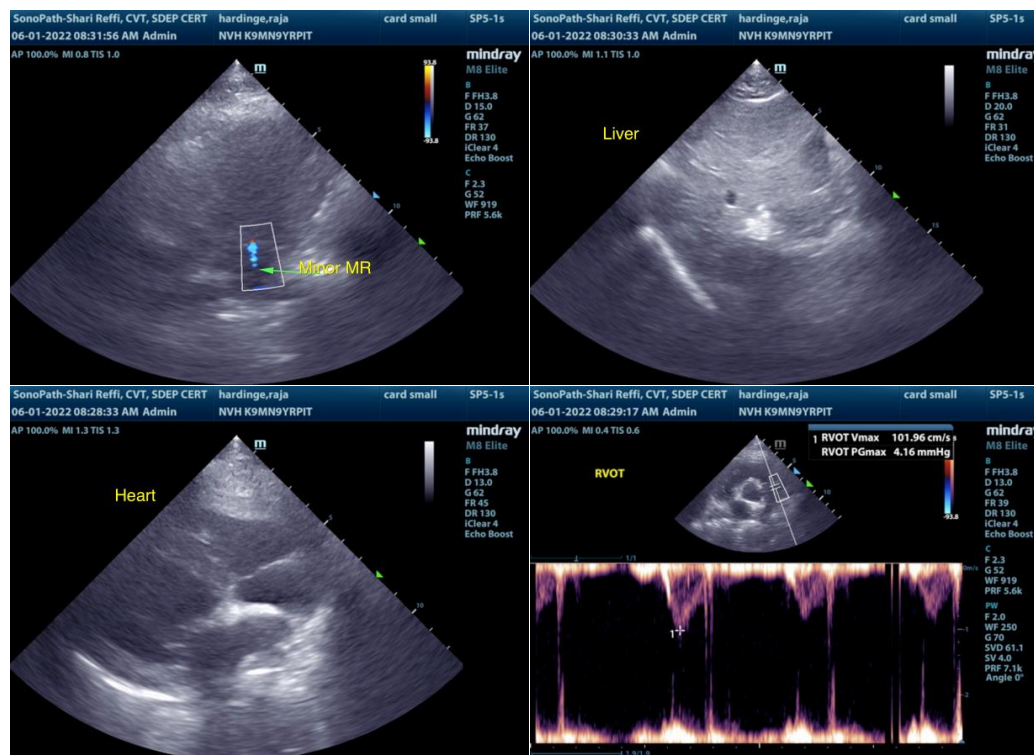
ULTRASONOGRAPHIC FINDINGS

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

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of significant structural or functional cardiomyopathy including no evidence of clinical issues such as LV systolic dysfunction, left or right heart chamber enlargement, evidence of clinical pulmonary hypertension, or DCM-like criteria.

The overall cardiac presentation was not consistent with a cardiogenic component to the patient's chronic coughing. Primary upper or lower airway disease is likely. No indication for cardiac medications is evident. Recheck echocardiogram is recommended in 6 months, sooner if clinical signs consistent with heart disease, i.e., increased resting respiration rate, exercise intolerance, etc., arise.





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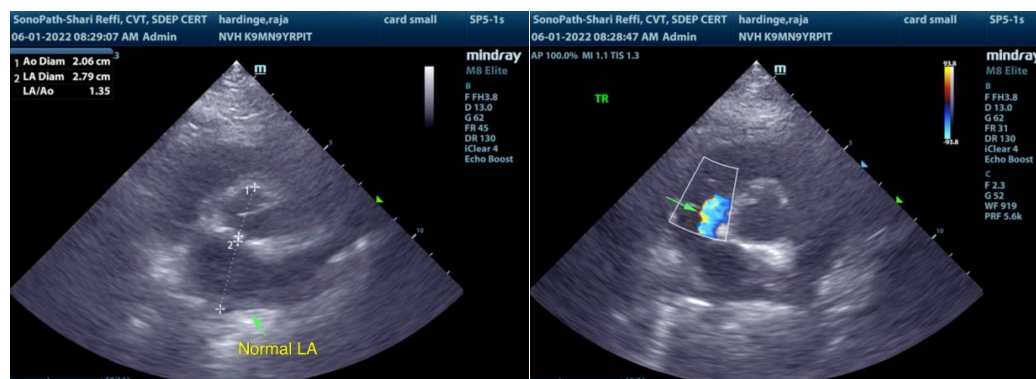
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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