

PATIENT

Missy Rush

SPECIES

Canine

BREED

Chihuahua

SEX

SF

AGE

10 years

WEIGHT

5 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

Albany Animal Hospital

REFERRING VET

Dr. Flanagan

INVOICE

13789

DATE

5/4/22

PRESENTING CLINICAL SIGNS

Patient has been coughing for one month, has history of seizures. Had multiple seizures in February of 2022. Took images of chest and found a collapsing trachea. Patient was send home cough suppressant.

Abnormal PE/Chem/CBC/UA Results: HR=130 RR=30 Blood Pressure Measurements 106/91 83

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			1.6	1.46	39	72.4	0.1
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	154	1.1	0.75		2.4	2.1	

Cardiac Presentation

The echocardiogram in this patient demonstrated mildly enlarged **left atrial** size based on 3 different LA measurement methods. Subtle deviation of the intra-atrial septum towards the right atrium, suggestive of minor increased left atrial pressure, was present. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis with mild prolapse of the septal leaflet. Doppler indicated eccentric insufficiency. The **left ventricle** presented thicknesses with linear contour with minor increased left ventricle volume. 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 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). 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.



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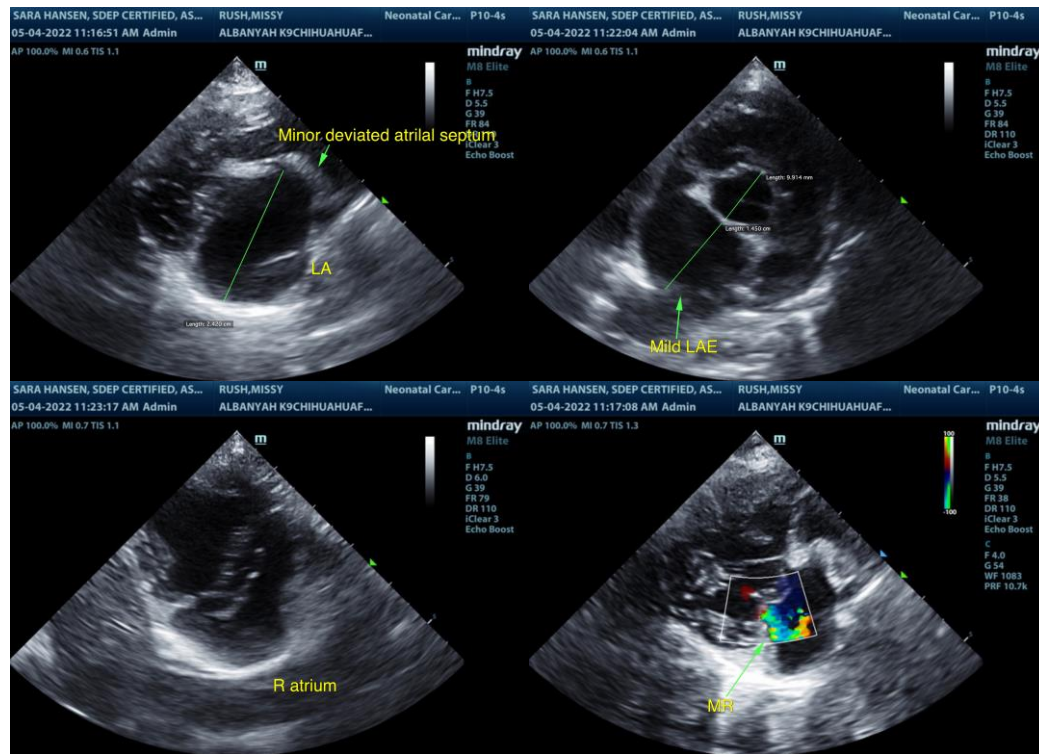
ULTRASONOGRAPHIC FINDINGS

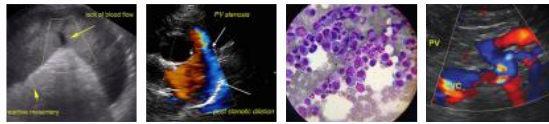
- Chronic mitral valve disease (ACVIM mild B2) with mild septal mitral valve leaflet prolapse

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

This study is consistent with chronic degenerative mitral valve changes with secondary eccentric insufficiency. The mild LA/LV enlargement indicates that the current and future risk of complication is mildly elevated, yet overall, the heart appears to be compensated. No other clinical issues such as LV systolic dysfunction or evidence of clinical pulmonary hypertension were noted. No overt evidence of arrhythmia was noted.

Given this presentation, the coughing in this patient is most likely noncardiogenic in origin. Although the heart appears to be compensated, Pimobendan 0.3 mg/kg PO BID could be considered at this stage as this medication may be of benefit in prolonging cardiac changes associated with mitral valve insufficiency. Serial sonographic monitoring is required for further prognosis, which is highly variably at this stage. Recheck echocardiogram is suggested in 6 months, sooner if clinical signs suggestive of heart disease arise.





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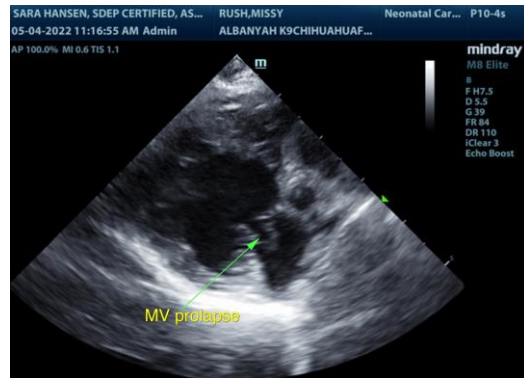
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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