


**PATIENT**

Brooklyn Shulman

**PRESENTING CLINICAL SIGNS**

CUS recheck, last performed by prev. vet in M.A. (mv-mild ACVIM stage B1. Elevated AO velocity R/O mild AS vs normal variant. Murmur grade was II/VI now III/VI. No current meds.

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: n/a

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**
**BREED**

Brittany Spaniel

**SEX**

FS

**AGE**

9yr

**WEIGHT**

NA

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		1.7	1.7	31	58	0.38
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	134	2.3	1.3		4.4	4.1	

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Shari Reffi CVT

**HOSPITAL NAME**

North Warren A.H.

**REFERRING VET**

Dr. Corrado

**INVOICE**

13681ag

**DATE**

05/01/2023

**Cardiac Presentation**

The echocardiogram for this patient presented excessive left atrial size expressed both in the LA/AO and LA max measurements. The cranial and caudal mitral valve leaflets presented mild thickening consistent with endocardiosis. Doppler indicated measurable moderate eccentric insufficiency. The left ventricle presented thicknesses with linear contour and borderline increased LV 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 aortic valve appeared normal. Mild increased LVOT velocity with aortic insufficiency was present, measuring ~ 3.0 m/sec velocity. 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. Trace TR was present on 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 infiltrative disease was visible. The cranial mediastinum and pericardial regions were free of masses in the visible window.

**ULTRASONOGRAPHIC FINDINGS**

- Chronic mitral valve disease (ACVIM early/mild B2).
- Mild elevated LVOT velocity with aortic insufficiency.



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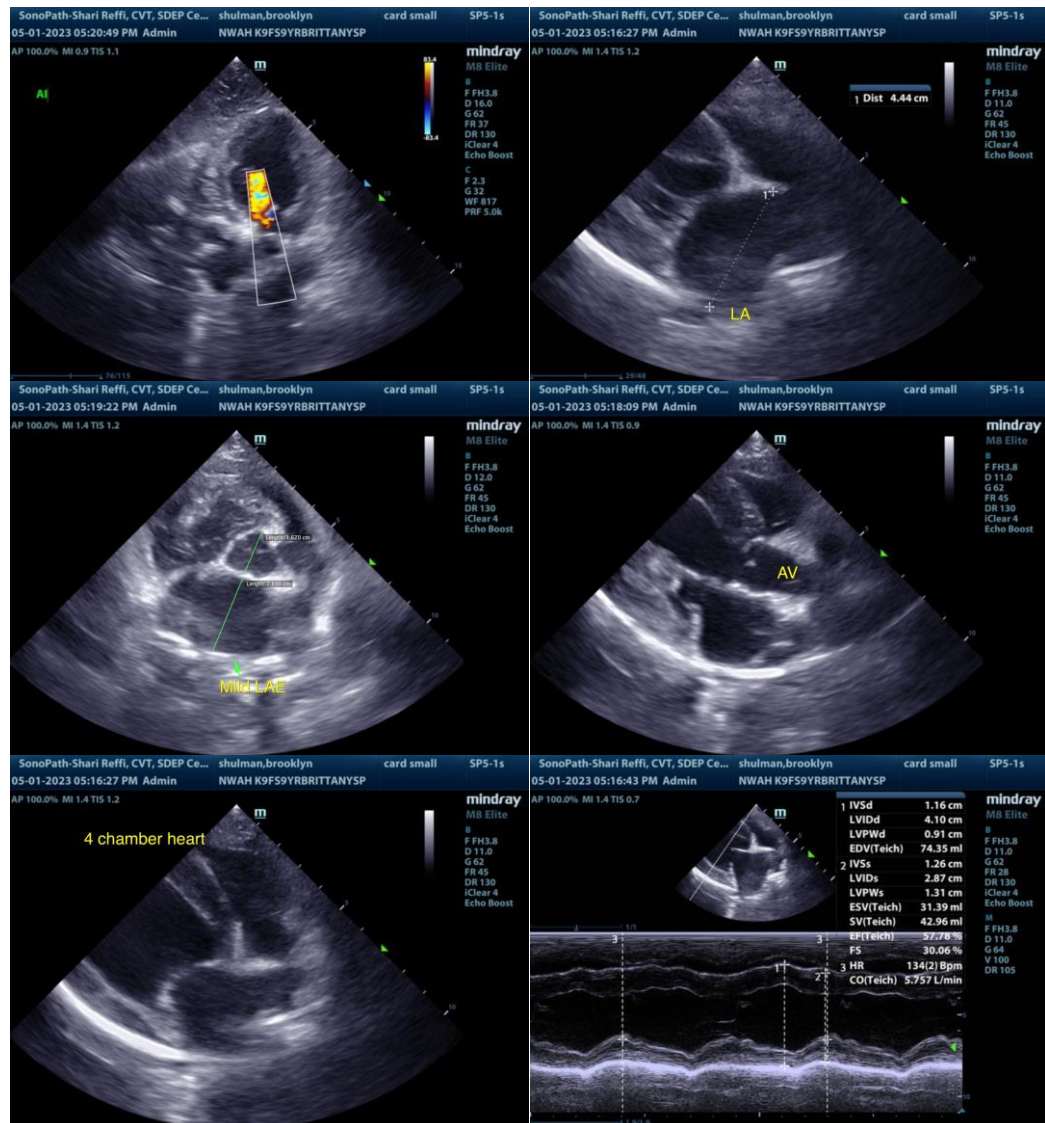
05/01/2023

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The mild LA enlargement with borderline increased LV volume indicate that the risk secondary to MR is mildly elevated yet overall, the heart appears to be compensated. No evidence of valvular or structural abnormality as a definitive cause of the mildly elevated LVOT velocity and aortic insufficiency. A screening BP is advised to assess for evidence of hypertension as a potential contributing factor. No other clinical issues such as LV systolic dysfunction or clinal pulmonary hypertension.

In a presumed non-clinical patient with only borderline/mild LV enlargement, cardiac medications are not overtly indicated yet Pimobendan 0.3 mg/kg PO BID could be considered as this medication may help prolong cardiac changes associated with MR.

Prognosis is highly variable and serial sonographic monitoring is required for further assessment. Recheck echocardiogram recommended in 6 months, sooner if clinical signs arise.





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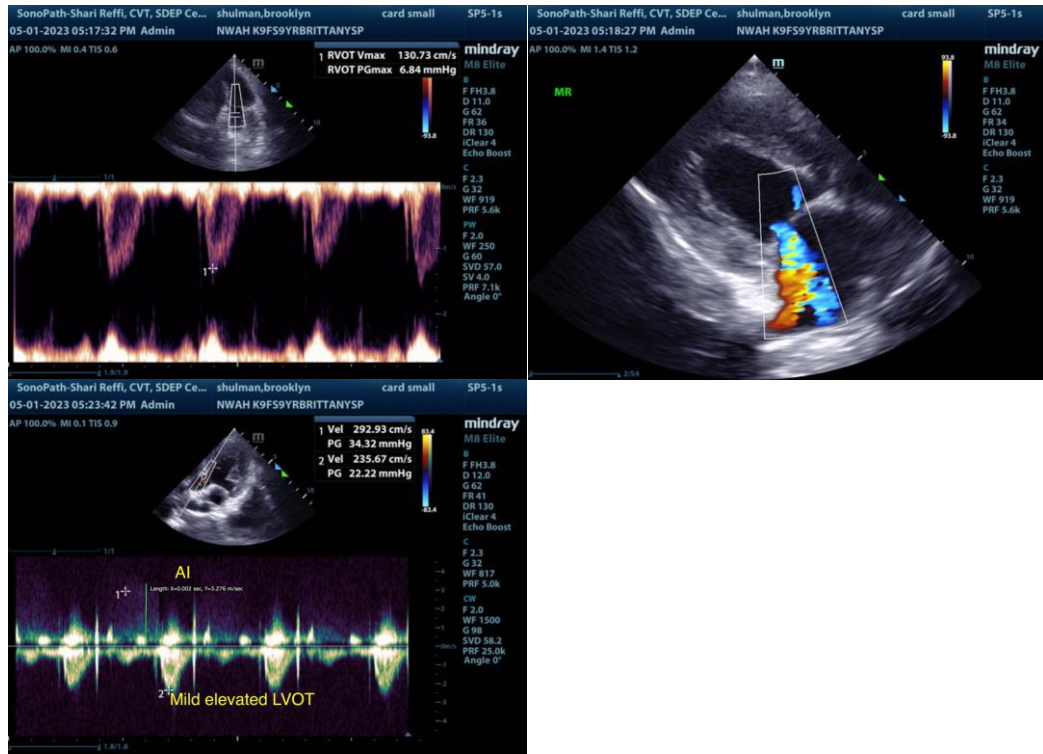
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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