



PATIENT

Bella Picorale

SPECIES

Canine

BREED

Brittany Spaniel

SEX

FS

AGE

8 years

WEIGHT

50.6 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Whippany VH

REFERRING VET

Dr. Enoch

INVOICE

15964

DATE

1/26/22

PRESENTING CLINICAL SIGNS

Grade III/VI L-sided heart murmur ausculted on 1/2/23. Previous history of Grade I/VI murmur in 2021. Heartgard, Seresto collar, trazodone for vet visits, Abnormal PE/Chem/CBC/UA Results: ALP 145

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				1.9	50	85	0.2
CANINE	HR	AV	PV	BODY WEIGHT	LA	LVIDd	LVIDs
CARDIAC PARAMETERS	(BPM)	VMAX (m/s)	MAX (m/s)	(kg)	2D short axis Base view (cm)	Avg; 2D and m-mode short axis (cm)	Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	162	1.9	2.0		5.0	3.8	

Cardiac Presentation

The echocardiogram in this patient demonstrated moderately enlarged **left atrial** size based on 2 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented mild thickening suggestive of mild endocardiosis without evidence of valvular prolapse. Doppler indicated measurable 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. Borderline increased measured LVOT velocity was present. The **right atrium** exhibited concurrent moderate enlargement with anechoic content. No evidence of masses associated with the right atrium were present. Possible although not definitive atrial septal defect with potential shunting of blood from the left to right atrium during diastolic filling was present. The possible atrial septal defect measured approximately 1.0 cm. **Tricuspid** valvular assessment demonstrated mild thickening with mild TR on Doppler. The **right ventricle** revealed increased size compared to the LV. Normal myocardial echogenicity and free wall thickness were present. **Pulmonic** tract assessment revealed mildly prominent pulmonary artery compared to the aorta with systolic laminar outflow and borderline increased RVOT velocity. No echographically detectable evidence of infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window. Brief sonographic assessment of the liver revealed no evidence of hepatic congestion.



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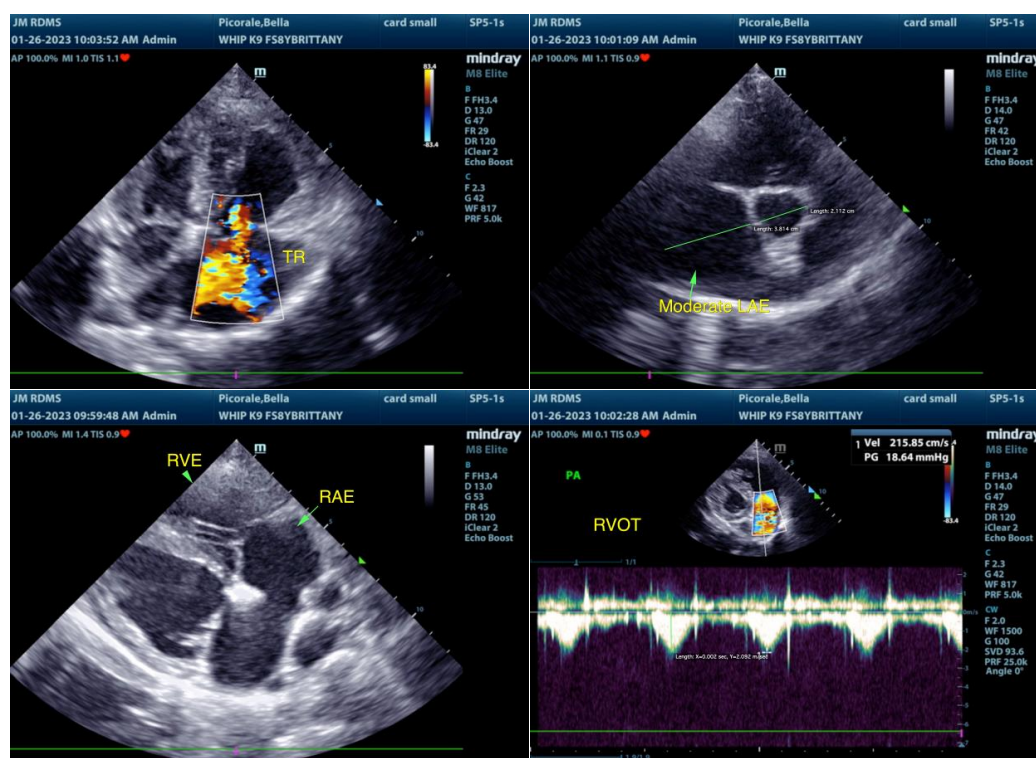
ULTRASONOGRAPHIC FINDINGS

- MR with moderate LA enlargement
- Concurrent RA / RV enlargement
- TR - no overt evidence of clinical pulmonary hypertension
- Possible atrial septal defect

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The primary cause of the murmur is mild chronic degenerative valvular changes with secondary primary MR and mild concurrent TR. The moderate LA enlargement indicates that the current and future risk of complications secondary to MR is moderate elevated. However, without reported clinical signs, the heart is most likely compensated at this stage. Pimobendan 0.3 mg/kg PO BID is warranted. Baseline monitoring of resting respiration rate going forward is suggested. Possible atrial septal defect is not definitive yet may coincide with shunting of blood resulting in RA/RV and subjective mild pulmonary artery enlargement.

Consider cardiology consult or cardiology referral for further assessment, as well as contrast imaging i.e., bubble study for further clarification. Serial sonographic monitoring is required for further prognosis. If cardiology referral is not elected, recheck echocardiogram is recommended in 4-6 months, sooner if clinical signs arise.





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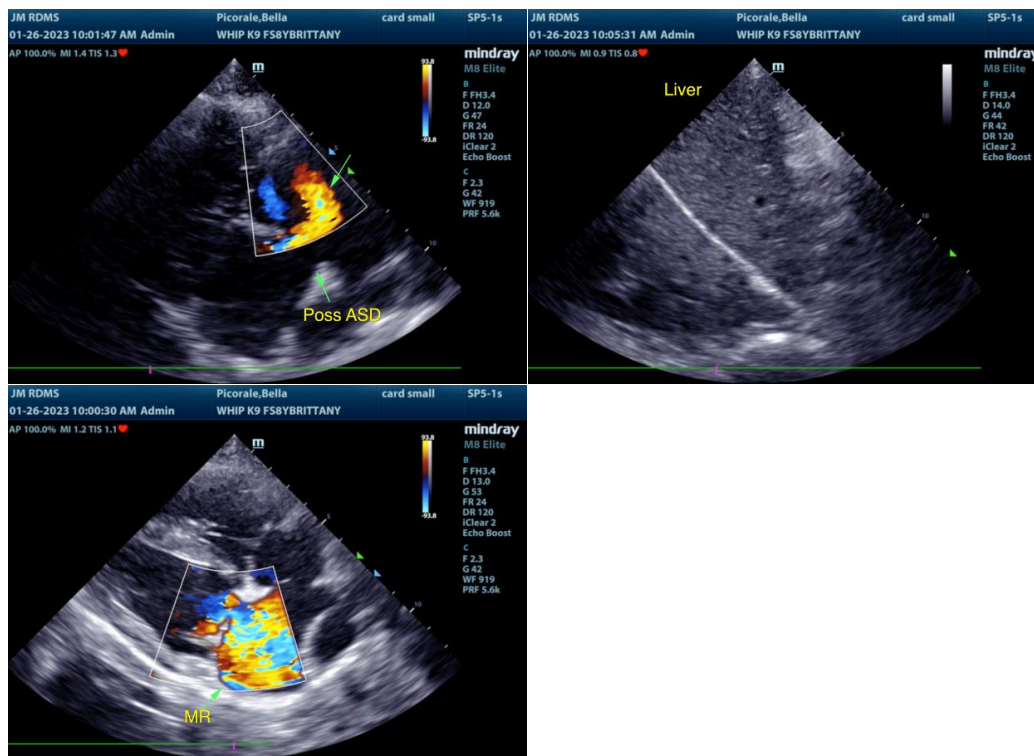
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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