



PATIENT

Sadie Brose

SPECIES

Canine

BREED

Cavalier King Charles
Spaniel

SEX

FS

AGE

10 YO

WEIGHT

22.6 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Kim Liedberg

PRESENTING CLINICAL SIGNS

History of heart disease Recheck echo from 12/2021 (Sonopath) Heart murmur grade 5/6, resting respiratory rate over 30 brpm/min Checking progression

Current Medications include; Pimobendan 2.5 mg BID, Amlodipine 2.5 mg SID, Benazepril 5.0 mg SID, and Spironolactone 12.5 mg BID

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	5.3	1.6	NM	2.0	49	81.2	0.2
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	143	1.9	0.83		4.6	3.6	

Cardiac Presentation

The echocardiogram in this patient demonstrated moderately enlarged **left atrial** size based on 3 different LA measurement methods. Subjective mild deviation of the interatrial septum towards the right atrium, consistent with increased left atrial pressure, was present. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with myxomatous degenerative changes with mild prolapse of the septal leaflet. Doppler indicated measurable moderate eccentric insufficiency. The **left ventricle** presented thicknesses with linear contour with mild to moderate 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 mild thickening with mild TR 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

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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 B2) with previously noted static septal leaflet prolapse
- Mild TR - estimated pulmonary pressure gradient not consistent with clinical pulmonary hypertension

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The echocardiogram demonstrates mild progression in left atrium size compared to the previous study with essentially static left ventricle volume. The mild progressive increased LA size indicates that the current and future risk going forward of complication is elevated and likely consistent with reported increased resting respiration rate. Potential for emerging decompensation is possible. Correlation with three-view chest radiographs to assess for evidence of pulmonary edema is suggested.

Current Pimobendan in addition to blood pressure medications is warranted if evidence of hypertension (BP > 130). The addition of Lasix Instead of spironolactone 1.0-2.0 mg/kg is recommended as spironolactone is a relatively weak diuretic. Monitoring of renal parameters and BP going forward is suggested. Recheck echocardiogram is suggested in 6 months, sooner if progressive clinical signs, i.e., exercise intolerance, continued increased resting respiration rate, evidence of radiographic pulmonary edema, etc., as prognosis at this stage is highly variable.

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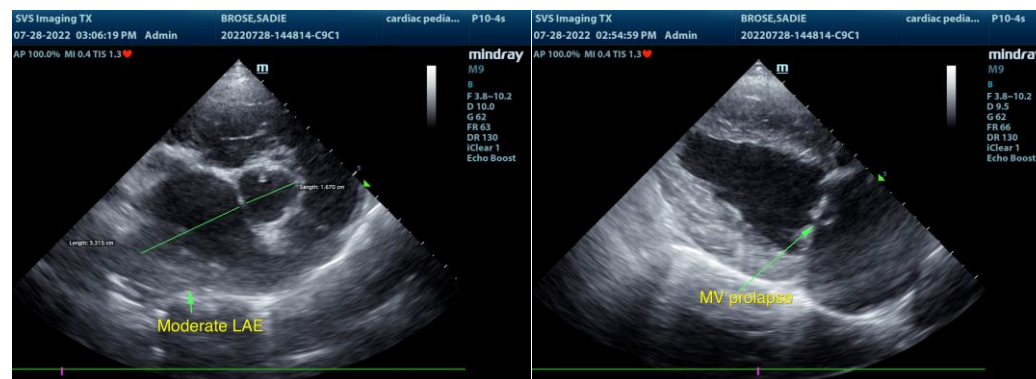
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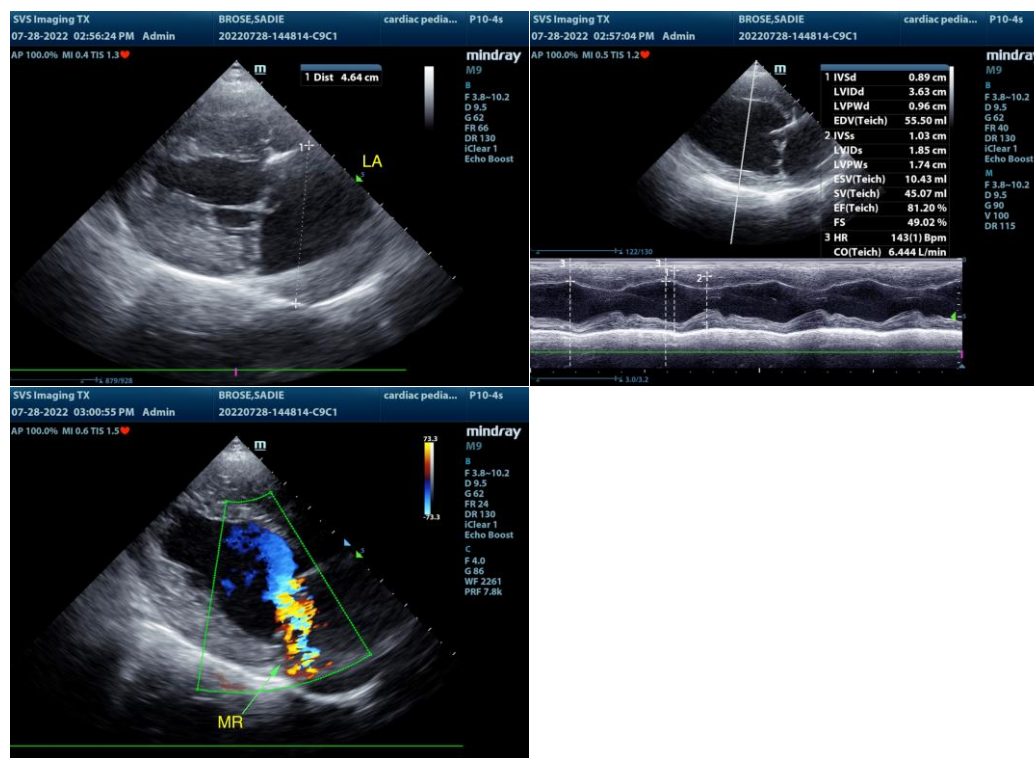
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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