


**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT** Bailey Doonan **History:** Pre surgical echo, grade II/VI systolic murmur  
**SPECIES** Canine **Abnormal PE/Chem/CBC/UA Results:** Platelet count 703, ALT 221, Alk Phos 286, BUN/Creat Ratio 29, K 5.7, Na/K

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**
**BREED** Cockapoo

**SEX** Neutered male

**AGE** 14 years

**WEIGHT** Not provided

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	6.0	2.6	1.33	1.44	36.1	67.6	0.21
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	82	2.4	1.4		3.6	3.3	NM

**INTERPRETED BY**

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

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal left atrial size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal mitral valve leaflets presented vegetative thickening consistent with endocardiosis. 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 subtle turbulent to dynamic systolic flow and normal structural integrity. Minor AI was present on Doppler assessment. Mildly elevated LVOT was noted. 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 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.

**IMAGING PERFORMED BY**  
 Jessica Miller

**HOSPITAL NAME**

ACC Flanders

**REFERRING VET**

Dr. Hallihan

**INVOICE**

10354ag

**DATE**

04/12/2022



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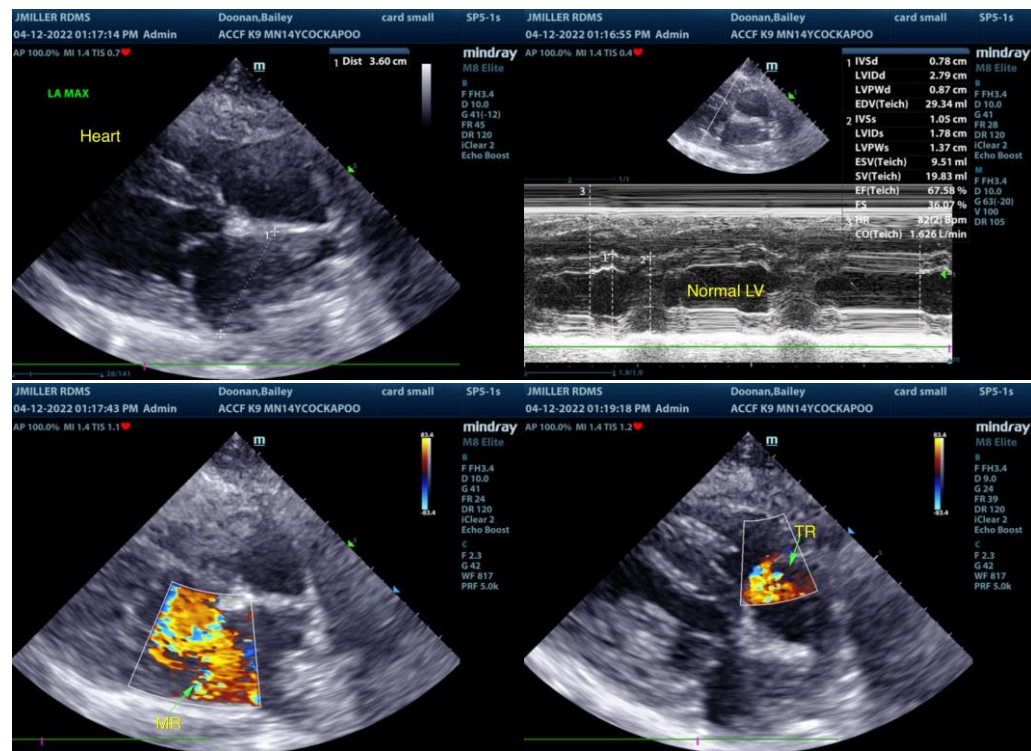
**ULTRASONOGRAPHIC FINDINGS**

- Chronic mitral valve disease (ACVIM B1).
- TV insufficiency-estimated pulmonary pressure gradient not consistent with clinical pulmonary hypertension.
- Mild increased LV outflow velocity.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the patient's murmur is secondary to chronic degenerative valvular changes with mitral and tricuspid valve insufficiency. The lack of LA enlargement indicates that the current and future risk of complication is relatively low. No other clinical issues such as systolic dysfunction or clinical pulmonary hypertension were noted. In a nonclinical patient without evidence of chamber enlargement cardiac medications are not specifically indicated. Assessment of systolic BP is suggested given the borderline elevated MR velocity as well as mildly elevated LV outflow velocity. No overt anesthetic contraindications based on this study assuming normal BP. Serial sonographic monitoring recommended for further prognosis with initial recheck echocardiogram suggested in 6 months, sooner if clinical signs arise.

Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.





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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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