


PATIENT

Duke Williams

PRESENTING CLINICAL SIGNS

 D2 mitral valve regurge + tricuspid regurge. Right heart \uparrow . Pulmonary hypertension. Note: seizure this AM (vs syncope)

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: Alk Phos 1160, Neutrophils 819, 224 (9/21)

ULTRASONOGRAPHIC EXAMINATION OF THE HEART
BREED

Petite Basset Griffon

SEX

Neutered Male

AGE

13 Years

WEIGHT

31.2 Pounds

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	<1.6	28-40	40-100	<0.6
PATIENT	5.2	2.0	NM	1.1	35.6	66.3	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	126	1.2	1.1		3.4	3.4	

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

ACC Flanders

REFERRING VET

Dr. Hallihan

INVOICE

29820

DATE

11/16/21

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable eccentric insufficiency. The **left ventricle** presented normal thicknesses with linear contour and was not dilated or restricted. Potential subjective mild septal flattening during systole. 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 subjective static mild increased size with normal structure and content. No evidence of masses. **Tricuspid** valvular assessment demonstrated mild thickening with previously noted insufficiency on color doppler assessment. The **right ventricle** exhibited subtle prominent size compared to the left ventricle with normal chordae structure, myocardial echogenicity, and overall subjective 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. Sonographic assessment of the liver revealed no evidence of hepatic congestion or cranial abdominal ascites as well as subjectively normal cranial abdominal caudal vena cava. Previously noted yet subjectively mild to improved transdiaphragmatic comet tail artifact was present.



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ULTRASONOGRAPHIC FINDINGS

- Continued compensated chronic mitral valve disease (B1)
- Tricuspid regurgitation with subjective stat mild right atrial enlargement
- No evidence of hepatic or caudal vena cava ingestion with persistent yet mild transdiaphragmatic comet tail artifact

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The estimated pulmonary pressure gradient in this study (based on tricuspid valve insufficiency was not overtly consistent with previously noted mild to potential moderate pulmonary hypertension. Likewise, no evidence of hepatic congestion suggestive of elevated pulmonary pressures. Given the previously noted mild to potentially moderate pulmonary hypertension in conjunction with patient's recent seizure versus syncope episode as well as persistent mild right atrial enlargement, the possibility of mild pulmonary hypertension cannot be definitively excluded, as the tricuspid regurgitation velocity was potentially underestimated.

The lack of left atrial enlargement indicates that the risk of complication secondary to mitral valve insufficiency remains low. No indication for cardiac medications associated with mitral valve insufficiency. If Sildenafil is currently instituted, continuation of this medication at lowest effective dose would be based on the clinical impression of the patient (i.e., positive response as far as previous tachypnea). Concurrent lower airway disease may still be considered a potential etiology, while the possibility of paroxysmal arrhythmia cannot be definitively excluded. ECG and blood pressure assessment warranted. Recheck echocardiogram suggested in 6 months, sooner if continued syncopal episodes are noted, or if strong clinical concern for pulmonary hypertension.

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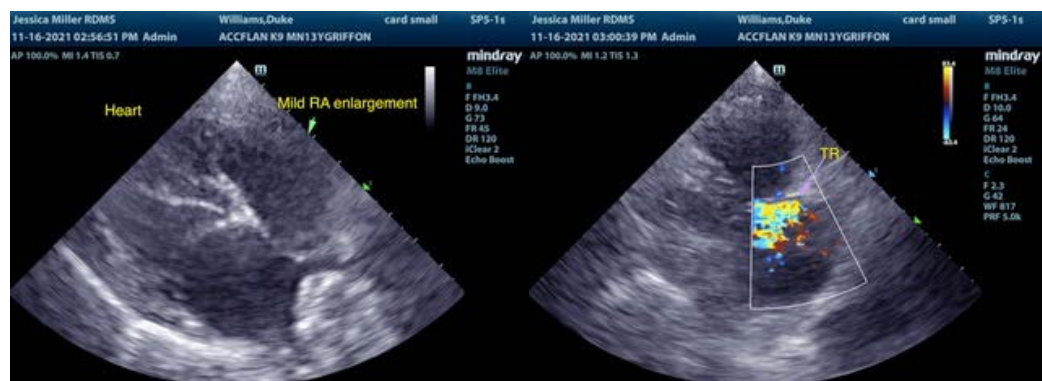
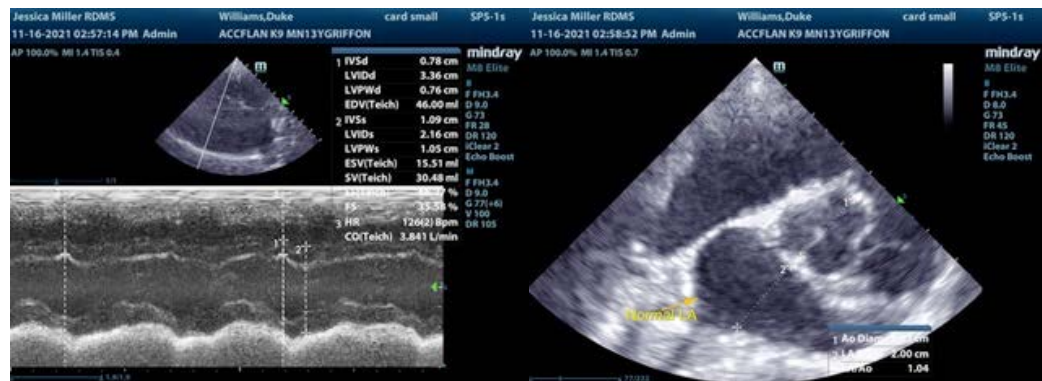
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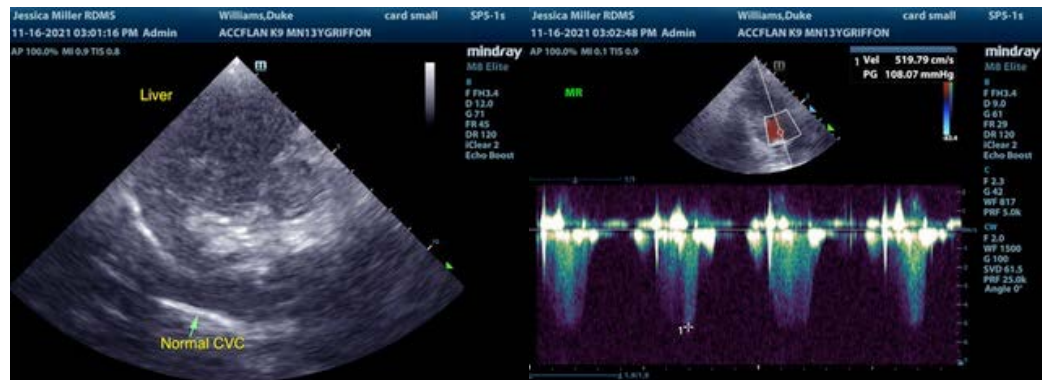
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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