



**PATIENT**

Chickadee Hunt

**SPECIES**

Canine

**BREED**

German Shepherd Dog

**SEX**

Female Spayed

**AGE**

2.11 years

**WEIGHT**

90lbs

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Pamela Harrigan,  
RDCS

**HOSPITAL NAME**

Mass Veterinary Services

**REFERRING VET**

Dr. Masloski

**INVOICE**

30418

**DATE**

4/25/23

**PRESENTING CLINICAL SIGNS**

History: Chickadee had a collapse episode in November with others noted in January. Her last collapse episode was ~ 1 week ago---during this time, Chickadee did not go down but was acting odd, coughing/gagging. History of heartworm treatment. Occasional cough noted but no S/V/D. Chickadee is eating well with overall normal activity. On exam: NSR, no murmurs noted, PSS, lung fields clear, mm pink, moist, CRT<2. BP: 180-190mmHg. \*Sedated with propofol for study.

**ELECTROCARDIOGRAPHIC FINDINGS**

A six lead ECG is available at 25mm/s; 20mm/mV. The average heart rate is 90bpm (range 55-107bpm). The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P wave morphology is positive with a normal dimension. Normal PR. The QRS morphology is positive with normal dimension. MEA is normal. No ectopic beats, pauses or dysrhythmias observed.

ECG diagnosis: Normal sinus rhythm with respiratory variation.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and Doppler imaging is available.

**Left ventricle:** The LV diameter is normal with adequate myocardial function for a large breed dog under sedation. LV wall thicknesses are normal.

**Left atrium:** The left atrium is normal.

**Mitral valve:** The mitral valve is mildly thickened with no prolapse into the left atrial lumen. Trivial MR.

**Aortic valve/Aorta:** The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity depending on heart rate; laminar flow. No aortic insufficiency.

**Right ventricle:** Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension.

**Right atrium:** Normal RA dimension.

**Tricuspid valve:** The tricuspid valve appears normal with trace tricuspid regurgitation. Normal velocity.

**Pulmonic valve/Pulmonary artery:** The pulmonic valve is normal in morphology and mobility. The MPA is mildly dilated. Trace pulmonic insufficiency. Normal RVOT velocity; laminar flow.

**Pericardium/other:** No pericardial or pleural effusion noted. No obvious cardiac masses.

**2-Dimensional Measurements**

|                    |     |
|--------------------|-----|
| Ao diam (cm)       | 2.1 |
| LA diam (cm)       | 2.5 |
| LA:Ao (Swe)        | 1.2 |
| IVS thickness (cm) | 1.1 |
| LVID diastole (cm) | 3.4 |
| PW thickness (cm)  | 0.9 |
| LVID systole (cm)  | 2.5 |
| FS (%)             | 26  |

**Doppler Measurements**

|                |      |
|----------------|------|
| PV Vmax (m/s)  | 0.84 |
| AoV Vmax (m/s) | 1.4  |
| MR Vmax (m/s)  | NM   |
| TR Vmax (m/s)  | 2.2  |
| TR PG (mmHg)   | 20   |

**INTERPRETATION OF THE FINDINGS**

Overtly normal cardiac structure and function. The overall dimensions and function are normal with no evidence of significant structural disease. The MPA is mildly dilated, which may be secondary to a prior heartworm infestation. That being said, the TR velocity is



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normal, and the right heart is not enlarged suggesting this is subclinical. Finally, the ECG is unremarkable with a respiratory sinus arrhythmia. No additional issues are identified.

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No cause for collapse is seen in this study. While true pulmonary hypertension can lead to this development (if exertional), what is seen here is unlikely to be a simple explanation. Other possibilities should be considered, such as an arrhythmia (not capture on the ECG), BP swings, vaso-vagal events, etc. Further systemic evaluation is advised, including neuromuscular exam +/- a holter monitor may be warranted.

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**RECOMMENDATIONS**

- No cardiac medications are clearly indicated.
- Consider systemic evaluation, holter monitor, etc. as discussed.
- No cardiac contraindication for general anesthesia.
- Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

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**PLAN**

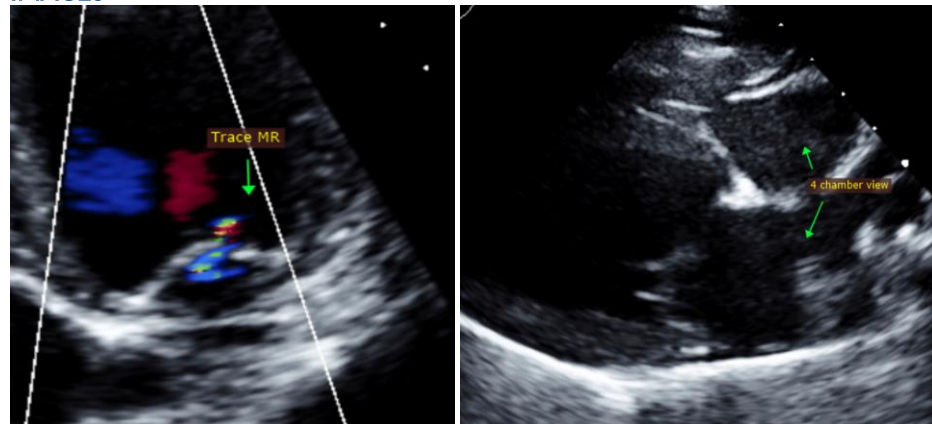
- Recommend conservative monitoring with a recheck echocardiogram should a murmur or signs of cardiac compromise be noted in the future.

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**IMAGES**

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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.

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Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. 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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German Shepherd Dog

Maggie Machen Lamy, DVM  
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info@sonopath.com

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**Echocardiogram performed by:** Pamela Harrigan, RDCS  
Pet Animal Ultrasound Service (4paus.com)

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