



**PATIENT**  
Bentley Armstrong

**SPECIES**  
Canine

**BREED**  
Labrador Retriever

**SEX**  
Male Neutered

**AGE**  
7 years

**WEIGHT**  
82.6lbs

**INTERPRETED BY**  
Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**IMAGING PERFORMED BY**  
Pamela Harrigan,  
RDCS

**HOSPITAL NAME**  
Mass Veterinary  
Services

**REFERRING VET**  
Dr. Masloski

**INVOICE**  
31528

**DATE**  
6/26/23

**PRESENTING CLINICAL SIGNS**

History: Bentley had a collapse event 2 weeks ago. Lab work at that time was unremarkable. At the time of the episode, Bentley was sleeping, was woken up to go outside, ran out of the house and on the way back in, became wobbly, fell on his side for 5-10 seconds, got up still a bit ataxic and seemed to be confused. He appeared to be stressed the remainder of the day. Bentley has been eating well with otherwise normal activity. On exam: NSR, no murmurs noted, PSS, lung fields clear, mm pink, moist, CRT<2. BP: 140mmHg. \*Sedated with propofol for study.

**ELECTROCARDIOGRAPHIC FINDINGS**

A six lead ECG is available at 25mm/s; 10mm/mV. The average heart rate is 100bpm (range 88-115bpm). 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. LV wall thicknesses are normal.  
**Left atrium:** The left atrium is normal.  
**Mitral valve:** The mitral valve is normal. No mitral regurgitation.  
**Aortic valve/Aorta:** The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; 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.  
**Pulmonic valve/Pulmonary artery:** The pulmonic valve is normal in morphology and mobility. No 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)	2.6
LA diam (cm)	2.9
LA:Ao (Swe)	1.1
IVS thickness (cm)	1.3
LVID diastole (cm)	3.0
PW thickness (cm)	1.3
LVID systole (cm)	2.0
FS (%)	33

**Doppler Measurements**

PV Vmax (m/s)	0.55
AoV Vmax (m/s)	1.0
MR Vmax (m/s)	NA
TR Vmax (m/s)	2.2
TR PG (mmHg)	20

**INTERPRETATION OF THE FINDINGS**

Overtly normal cardiac structure and function. No significant valve leaks are appreciated, and systolic function is intact. No pulmonary hypertension is seen, and no additional issues are identified. The ECG shows a normal sinus rhythm with respiratory variation.



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These findings do not clearly explain the reported collapse episode. Consider other possibilities, such as a neurologic or systemic issue. An intermittent arrhythmia cannot be ruled out without a holter monitor; however, this is considered less likely in this case.

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Canine

**RECOMMENDATIONS**

- No cardiac medications are clearly indicated.
- Consider further systemic/neurologic evaluation as discussed.
- Consider a holter monitor if warranted.
- No cardiac contraindication for general anesthesia pending a normal response to Atropine.
- Monitor for development of a murmur, cough, labored breathing, exercise intolerance or collapse episodes.

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**PLAN**

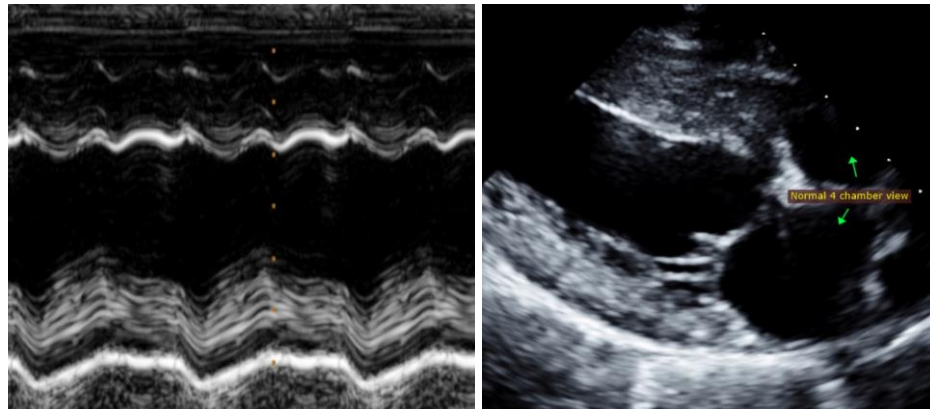
- Recommend a recheck echocardiogram should a murmur or any clinical signs of cardiac compromise develop in the future.

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Mass Veterinary Services

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.

**REFERRING VET**  
Dr. Masloski

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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31528

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