

PATIENT

Bentley Driscoll

SPECIES

Canine

BREED

Labrador Retriever Mix

SEX

Male Neutered

AGE

12 years

WEIGHT

78.8lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

IMAGING PERFORMED BY

Pamela Harrigan,
RDCS

HOSPITAL NAME

Compassionate Care
Veterinary Hospital

REFERRING VET

Dr. Coats

INVOICE

24845

DATE

6/17/22

PRESENTING CLINICAL SIGNS

History: Presented for surgical removal of mass. No cardiac concerns were noted on pre-surgical exam or bloodwork. No cough, tachypnea, dyspnea or history of collapse. Bentley does have a history of seizures managed on phenobarbital. At surgery, induction with hydromorphone 0.1 mg/kg and midazolam 0.2 mg/kg IV, propofol and maintained isoflurane 2% with O2. During anesthesia, intermittent, single VPCs developed, and the procedure was aborted. Post anesthesia ECG showed sinus arrhythmia with single VPCs. Thoracic radiographs reveal VHS of 11.11, no abnormal lung pattern, no neoplasia. Abdominal radiographs and abdominal ultrasound showed no evidence of mass. Assessing for underlying cardiac disease. BP: 148, 150, 150mmHg. Bentley has been on a grain-free diet.

ELECTROCARDIOGRAPHIC FINDINGS *Note: Single lead ECGs are evaluated as a rhythm strip. Morphology/MEA cannot be definitively commented on.

A single lead ECG is available; 25mm/s, 20mm/mV. The average heart rate is 80bpm (range 55-107bpm). The rhythm is sinus in origin, with a p for every QRS complex and vice versa. P and QRS morphologies are positive. 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 mildly increased with moderate systolic dysfunction. LV wall thicknesses are decreased. Mildly increased sphericity.

Left atrium: The left atrium is mildly dilated.

Mitral valve: The mitral valve is normal with no prolapse into the left atrial lumen. Mild to moderate central mitral regurgitation. Normal velocity.

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

Right ventricle: Mildly dilated right ventricular.

Right atrium: Mild RA dilation.

Tricuspid valve: The tricuspid valve appears normal with mild to moderate tricuspid regurgitation. Normal velocity.

Pulmonary valve/Pulmonary artery: The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow.

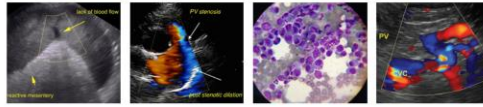
Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.

2-Dimensional Measurements

Ao diam (cm)	2.6
LA diam (cm)	3.9
LA:Ao (Swe)	1.5
IVS thickness (cm)	1.0
LVID diastole (cm)	5.0
PW thickness (cm)	0.9
LVID systole (cm)	4.3
FS (%)	15

Doppler Measurements

PV Vmax (m/s)	0.4
AoV Vmax (m/s)	1.0
MR Vmax (m/s)	5.9
TR Vmax (m/s)	2.0
TR PG (mmHg)	16



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INTERPRETATION OF THE FINDINGS

Mild 4 chamber dilation and moderate systolic dysfunction are identified. Certainly, this is concerning for cardiomyopathy and the diet must also be considered as a possible contributing factor. In a senior large breed dog, primary disease is also possible. Mild to moderate mitral and tricuspid regurgitation are identified, which are likely secondary. Serial monitoring is advised. Mild MR is of little hemodynamic significance. No additional issues are identified.

Given the echo findings and the recent evidence of grain free diets leading to DCM in some (but certainly not all) dogs, highly recommend change to a more standard well formulated diet. A taurine level can be submitted, however regardless of results recommend a taurine supplement in this case as below. Monitoring for progression is advised. A thyroid level is recommended as a possible contributing issue as well. Monitoring for improvement with a diet change will help dictate long-term outcome. While the two-minute screening ECG was unremarkable, a single premature beat is noted during the study. This is likely a VPC given the history. If abnormal beats appear infrequent, the no treatment is warranted at this time. A holter monitor can be considered, particularly should any further abnormalities be ausculted on exam. Any arrhythmias puts the patient at risk for sudden death, which should be expressed to the owner. Anesthesia is not advised given the history and echo findings.

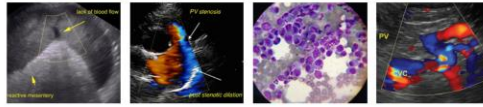
Recommend consider Pimobendan at this juncture, given mild LA dilation and severity of disease. Pending response (i.e., if the LV improves over time) we may consider discontinuing this in the future. Prognosis is guarded, with some diet-related cardiomyopathy cases improving with therapy.

RECOMMENDATIONS

- Institute Pimobendan 0.25-0.3mg/kg PO q12h.
- Institute Taurine supplement, 1000mg PO q12h.
- Immediate diet change is recommended.
- Consider a holter monitor as discussed.
- Omega fatty acid supplementation may be of some long-term benefit.
- Anesthetic risk is considered moderately elevated. Avoid ketamine, telazol, Dexdomitor (or other alpha-2 agonists) and acepromazine. Recommend having lidocaine CRI available for use in the event of worsening ventricular arrhythmias under anesthesia (CRI 50–75mcg/kg/min). Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

PLAN

- Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.



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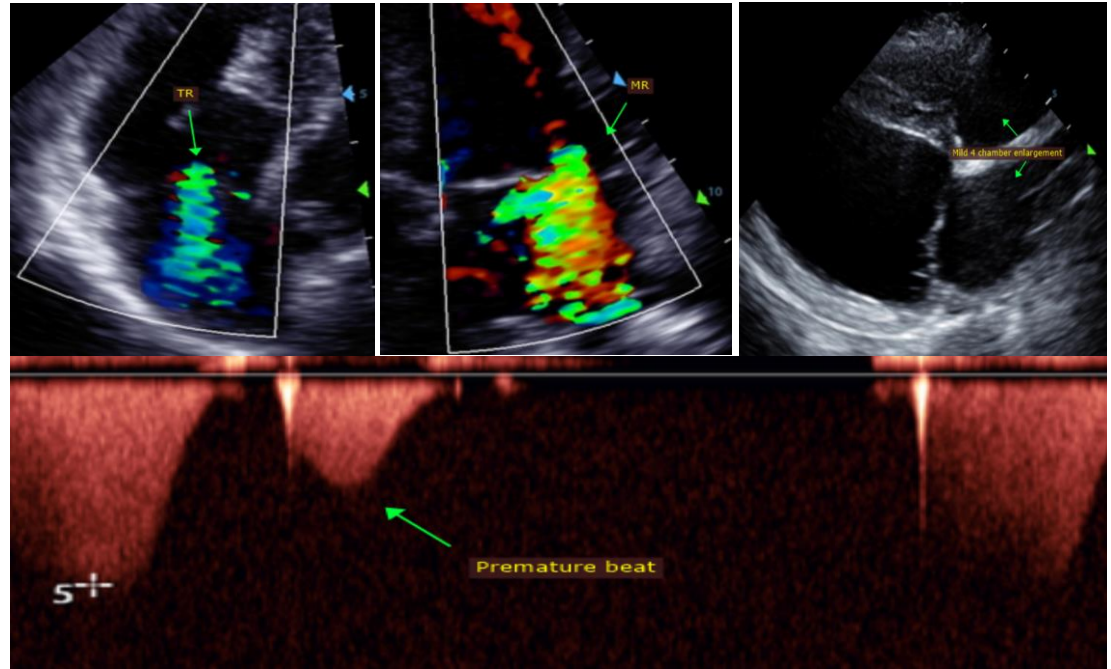
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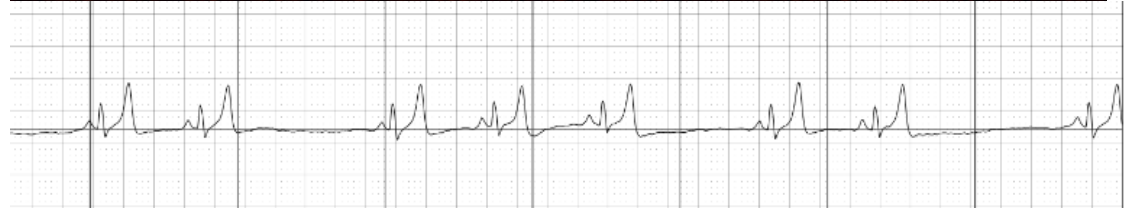
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IMAGES



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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.

HOSPITAL NAME

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 Veterinary Hospital

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.

REFERRING VET

Dr. Coats

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