



**PATIENT**

Marley Conway

**SPECIES**

Canine

**BREED**

Bernese Mountain Dog

**SEX**

Female Spayed

**AGE**

4 years

**WEIGHT**

81.2lbs

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Pamela Harrigan,  
RDCS

**HOSPITAL NAME**

Mass Veterinary Services

**REFERRING VET**

Dr. Masloski

**INVOICE**

22059

**DATE**

11/16/21

**PRESENTING CLINICAL SIGNS**

History: Recheck echo. History restrictive VSD, mild LVOT stenosis; mild dilation aortic root. Current presentation: Occasional panting but no C/S/V/D. No exercise intolerance or labored breathing. CV/RESP: NSR, no murmurs noted, PSS, lung fields clear. BP: 150mmHg x 5.

-Current medications: Enalapril 10mg 1.5 tabs daily.  
-Pertinent previous echo findings (12/21/20 MML): LA 3.6 cm; LA:Ao 1.1; LV 5.06 cm; minimal LAE; LVE; LVOT 3.2 m/s; VSD 5 m/s \*No sedation.

**ECHOCARDIOGRAM FINDINGS**

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

**Left ventricle:** The LV diameter is increased with adequate myocardial function. LV wall thicknesses are normal. A perimembranous ventricular septal defect (VSD) is visualized.

The flow is left to right; max velocity 5.2m/s. The IVS appears to be causing a mild LVOT obstruction (see below) similar to SAS.

**Left atrium:** The left atrium is minimally dilated.

**Mitral valve:** The mitral valve is normal with no mitral regurgitation.

**Aortic valve/aorta:** The aortic valve is normal in morphology and mobility. Mildly elevated aortic outflow velocity; laminar flow. Mild aortic insufficiency.

**Right ventricle:** The RV appears mildly dilated with no evidence of hypertrophy.

**Right atrium:** Normal RA dimension.

**Tricuspid valve:** The tricuspid valve appears normal with no 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.

**Heart rhythm:** ECG reveals a sinus rhythm with an average HR of 100bpm.

**2-Dimensional Measurements**

Ao diam (cm)	3.5
LA diam (cm)	3.1
LA:Ao (Swe)	0.9
IVS thickness (cm)	1.0
LVID diastole (cm)	5.0
PW thickness (cm)	1.0
LVID systole (cm)	2.9
FS (%)	44

**Doppler Measurements**

PV Vmax (m/s)	1.1
AoV Vmax (m/s)	2.7
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

**INTERPRETATION OF THE FINDINGS**

Unchanged congenital disease is appreciated in this study. The max velocity across the VSD is similar to previous with no evidence of shunt reversal. Mildly elevated flow through the dilated aorta is stable and the left heart dimensions unchanged. No additional issues are identified.

Given these findings, prognosis remains guarded long term; however, no progression or volume overload is certainly encouraging. Continuing Enalapril is reasonable going forward.



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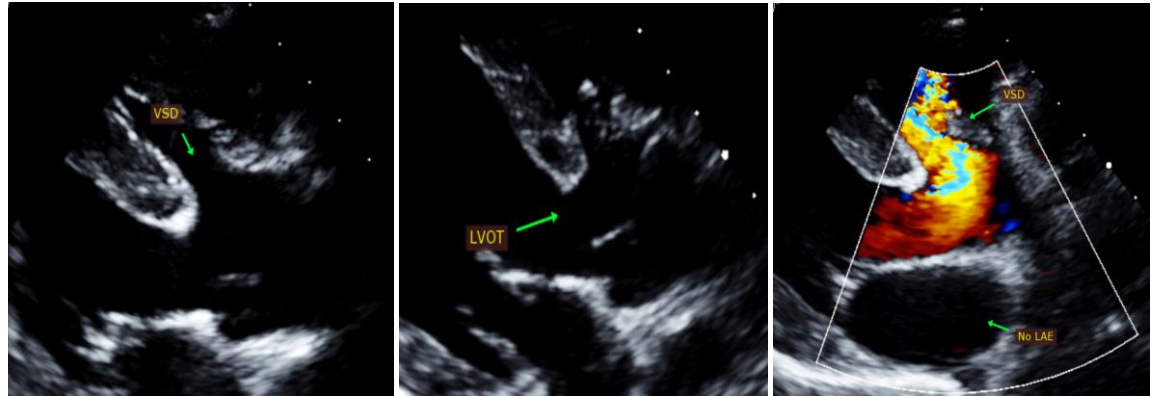
**RECOMMENDATIONS**

- Continue Enalapril as prescribed.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Anesthetic risk is considered mildly elevated if needed. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Mild IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.
- Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

**PLAN**

- Recommend conservative monitoring with annual recheck echocardiograms lifelong, sooner if any development of clinical signs.

**IMAGES**



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. 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.

Maggie Machen Lamy, DVM  
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Echocardiogram performed by: Pamela Harrigan, RDCS  
Pet Animal Ultrasound Service (4paus.com)