



**PATIENT**

Lexi Buzzee

**SPECIES**

Canine

**BREED**

Australian Shepherd Mix

**SEX**

Female Spayed

**AGE**

11 years

**WEIGHT**

54.9lbs

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Pamela Harrigan,  
RDCS

**HOSPITAL NAME**

Mass Veterinary Services

**REFERRING VET**

Dr. Masloski

**INVOICE**

28859

**DATE**

2/8/23

**PRESENTING CLINICAL SIGNS**

History: Lexi was noted to have a ventricular arrhythmia earlier this month when she was seen for a cough and hyporexia. She has a history of elevated hepatic enzymes which have worsened with time. Lab work done at that time revealed a normal thyroid with some hepatic and renal enzyme elevation. Chest films revealed a normal heart silhouette with normal vasculature but with a patchy increased opacity in the cranial and middle lung lobes. Lexi's appetite has improved but she continues to have some trouble getting up. She does not have any V/D/PU/PD noted. On exam: irregular rhythm, no murmurs noted, PSS, lung fields clear, mm pink, moist, CRT < 2. BP: 230mmHg x 5. Current medications: 1) Marbofloxacin/zenoquin 100mg daily 2) Gabapentin 300mg am and mid-day with 400mg pm 3) Denamarin 3) Omeprazole 20mg daily

**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, 10mm/mV, 3 minutes duration. The average heart rate is 120bpm (range 100-150bpm). The rhythm is sinus in origin, with a p for every QRS complex and vice versa. P and QRS morphologies are positive. Frequent isolated VPCs are seen throughout; singles only, polymorphic. No supraventricular premature beats, pauses or other dysrhythmias observed.

ECG diagnosis: Normal sinus rhythm with isolated polymorphic VPCs.

**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 mildly dilated.

**Mitral valve:** The mitral valve is mildly thickened with no prolapse into the left atrial lumen. Mild eccentric mitral regurgitation.

**Aortic valve/aorta:** The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. Trace 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 no tricuspid regurgitation.

**Pulmonic valve/pulmonary artery:** The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency.

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

**2-Dimensional Measurements**

Ao diam (cm)	2.5
LA diam (cm)	3.7
LA:Ao (Swe)	1.5
IVS thickness (cm)	1.0
LVID diastole (cm)	3.8
PW thickness (cm)	1.3
LVID systole (cm)	2.0
FS (%)	47

**Doppler Measurements**

PV Vmax (m/s)	NM
AoV Vmax (m/s)	1.5
MR Vmax (m/s)	NM
TR Vmax (m/s)	NA
TR PG (mmHg)	NA



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**INTERPRETATION OF THE FINDINGS**

Chronic degenerative valve disease causing mild mitral regurgitation. Lack of significant left atrial enlargement indicates the current risk for complication is low. No concurrent issues such as pulmonary hypertension are noted in this study.

**SPECIES**

Canine

The ECG does show frequent single VPCs. While single VPCs are typically of low concern, the frequency is quite high, and polymorphism is noted which may suggest a more significant issue in this case. It is mentioned in the history that the blood pressure is severely elevated, which is likely supported by the finding of aortic insufficiency. If this is thought to be a true pathologic finding, instituting vasodilator therapy as dictated by IM is recommended. True pathologic systemic hypertension alone could be enough to explain the arrhythmia, and reassessment is advised once the blood pressure is stabilized. If a persistent arrhythmia is noted, Sotalol may be warranted in this case (depending on frequency, etc). Patient may have risk for acute collapse and sudden death going forward and this should be expressed to the owner.

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Assessment of progression in the future will help predict long term prognosis, which is highly variable at this stage (B1).

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**RECOMMENDATIONS**

- No cardiac medications are clearly indicated.
- Consider vasodilator therapy if thought to be real finding versus reassess BP.
- Once the BP is considered controlled, reassess an ECG. If the VPCs are persistent, a holter monitor may be warranted versus instituting Sotalol depending on results.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Anesthetic risk is considered mild 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.

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**PLAN**

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

**REFERRING VET**

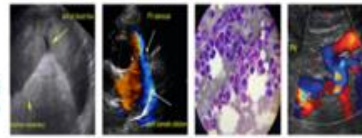
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**PATIENT IMAGES**

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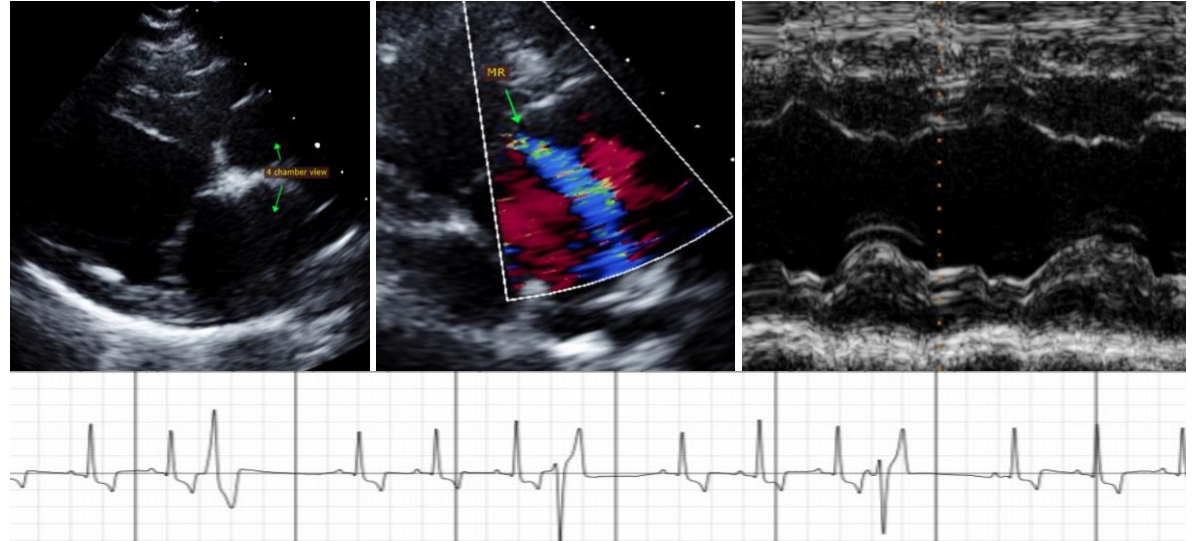
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. 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)

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