



PATIENT
Luna Hence-Smith

SPECIES
Canine

BREED
Golden Retriever

SEX
Female Spayed

AGE
4 years

WEIGHT
66.7lbs

INTERPRETED BY
Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan,
RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
32172

DATE
8/7/23

PRESENTING CLINICAL SIGNS

History: Recheck echo. History SAS; mitral valve dysplasia. Presently, Luna is doing well with a good appetite and normal activity level. On exam: NSR, grade III/VI murmur noted at heart base, PSS, lung fields clear, mm pink, moist, CRT<2. BP: 130-140 mmHg. Currently, no medications *No sedation for study.
-Pertinent previous echo findings (8/30/22 MML): LA 3.0 cm, LA:Ao 1.0, LV 3.4 cm; LVOT Vmax 4.2 m/s.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV chamber is normal without significant LV hypertrophy. The endocardium appears hyperechoic. Mild papillary muscle hypertrophy.
Left atrium: The left atrium is normal.
Mitral valve: The anterior mitral valve leaflet is thickened. SAM is visualized on 2D imaging. Trivial mitral regurgitation.
Aortic valve/aorta: Mild subaortic narrowing with a hyperechoic ridge is visualized. Velocity through the region is consistent with a mild stenosis. The aortic valve appears normal. Trivial aortic insufficiency. The ascending segment does appear dilated.
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 TR. Normal velocity.
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 congenital shunts appreciated. No obvious cardiac masses.
Heart rhythm: ECG reveals a sinus rhythm with an average HR of 140bpm.

2-Dimensional Measurements

Ao diam (cm)	2.4
LA diam (cm)	2.7
LA:Ao (Swe)	1.1
IVS thickness (cm)	1.0
LVID diastole (cm)	3.4
PW thickness (cm)	1.2
LVID systole (cm)	1.9
FS (%)	46

Doppler Measurements

PV Vmax (m/s)	0.83
AoV Vmax (m/s)	2.9
MR Vmax (m/s)	NA
TR Vmax (m/s)	2.2
TR PG (mmHg)	20

INTERPRETATION OF THE FINDINGS

Compared to the prior study, findings are similar. Subaortic stenosis (SAS) persists with a small aortic valve insufficiency. What is unexpected is the velocity through the region is decreased comparatively without use of Atenolol or sedation. The mitral valve remains abnormal; however, the dynamic component appears minimal. Finally, no LV hypertrophy has developed, and the LA is normal, suggesting low risk for complication. No additional issues are identified.

Given these findings, no medications are indicated at this time. Prognosis remains guarded yet highly variable.



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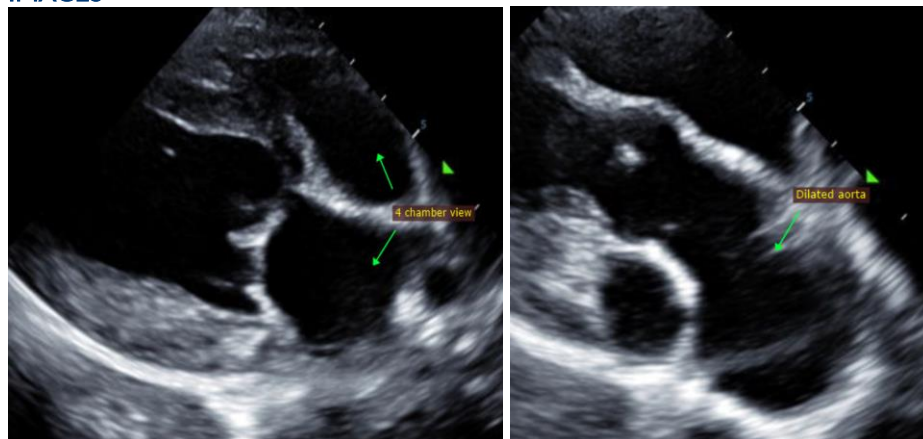
RECOMMENDATIONS

- No medications are indicated.
- Omega fatty acid supplementation and mild salt restriction may be of some long term anti-arrhythmic benefit.
- Anesthetic risk is moderate if needed. **Avoid heart rate stimulating drugs such as atropine or glycopyrrolate unless clinically indicated.** Avoid ketamine and acepromazine due to systemic vascular effects. Pre-oxygenate for 5-10 minutes prior to induction. A reasonable protocol includes opioid/benzodiazepine premedication, propofol or alfaxalone induction, and isoflurane gas. Mild IV fluid restriction is advised. Recommend prophylactic antibiotics for any orthopedic or dental procedure in the future given predisposition to endocarditis. Monitor for arrhythmias both intra and post-operatively.
- Monitor for development of labored breathing, exercise intolerance or collapse episodes, as AS patients are more predisposed to development of arrhythmias than to CHF.
- Moderate lifelong exercise restriction is advised.

PLAN

- Recommend conservative monitoring with a recheck echocardiogram annually, 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)