



PATIENT

Hope Friedman

SPECIES

Feline

BREED

DSH

SEX

Female Spayed

AGE

15 years

WEIGHT

9lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

IMAGING

PERFORMED BY

Pamela Harrigan,
RDCS

HOSPITAL NAME

FalmouthAnimal
Hospital

REFERRING VET

Dr. Hauser

INVOICE

32109

DATE

8/2/23

PRESENTING CLINICAL SIGNS

History: Recent senior blood work showed very high ProBNP (1,333). Chronic, unchanging cardiac murmur (grade III/VI), but asymptomatic. Diagnosed with hyperthyroidism in 2019, treated with Methimazole 1.25 mg q12h. There has been some weight gain. T4:4 high normal. BP: 210, 220, 226, 226mmHg.
-Abnormal PE/Chem/CBC/UA Results: BUN 45, creat 1.3, SDMA 8,

ECHOCARDIOGRAM FINDINGS

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

Left ventricle: The LV diameter is normal with adequate myocardial function. The LV wall thicknesses are mildly increased (IVS > LVWd). There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles appear hyperechoic and asymmetric with mild hypertrophy. The endocardium appears mildly remodeled.

Left atrium: The left atrium is mildly dilated. No obvious spontaneous contrast or thrombi seen.

Mitral valve: The mitral valve is normal in structure and mobility. Mild systolic anterior motion is seen with mild MR.

Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Mildly increased aortic outflow velocity with a dynamic profile. Trace aortic insufficiency.

Right ventricle: Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension.

Right atrium: The right atrium is normal in 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 250bpm.

2-Dimensional Measurements

Ao diam (cm)	1.0
LA diam (cm)	1.4
LA:Ao (Swe)	1.4
IVS thickness (cm)	0.67
LVID diastole (cm)	1.3
PW thickness (cm)	0.60
LVID systole (cm)	0.43
FS (%)	65

Doppler Measurements

PV Vmax (m/s)	1.2
AoV Vmax (m/s)	2.1
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

The diagnosis is hypertrophic obstructive cardiomyopathy. This indicates LV hypertrophy (mild in this case) with a dynamic LVOT obstruction (SAM) and secondary MR. Mild LVH may be primary or may be exacerbated by elevated blood pressure, as is noted in the history. There is mild left atrial dilation, indicating the risk of spontaneous CHF and/or a thrombotic event, while currently low, may be elevated in the future.

The reported blood pressure is severely elevated and should certainly be treated if thought to be accurate. Amlodipine is typically a good first-line choice, depending on systemic illness. Screen for PLN, etc. as potential underlying issues warranting additional therapy. IM consultation is recommended.



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While no medications have been shown to definitively alter long term outcome at this stage of disease, atenolol is often initiated to decrease the outflow obstruction. Given marked tachycardia, reported systemic hypertension and mild LA dilation, recommend initiate at this time as below. If there is difficulty medicating at home, an alternative approach would be closely monitoring for progression in the next 6 months.

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RECOMMENDATIONS

- Administer titrating dose of atenolol if able: 25mg tablets; Give ¼ tab once daily. Recheck heart rate in 1-2 weeks with target stressed rate of 140-160bpm 12-24 hours post-administration. Increase as needed until target reached.
- Institute Amlodipine if indicated as discussed.
- Screen for underlying causes of SHT, such as PLN.
- Monitor BP/T4 q6mo.
- Anesthetic risk is considered mild, however judicious IV fluid rates are advised to avoid fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid vasodilators as this may worsen the obstruction. A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, and isoflurane maintenance.
- Monitor at home for any respiratory signs or blood clot events (neurologic change, paralysis, etc.) in the future.

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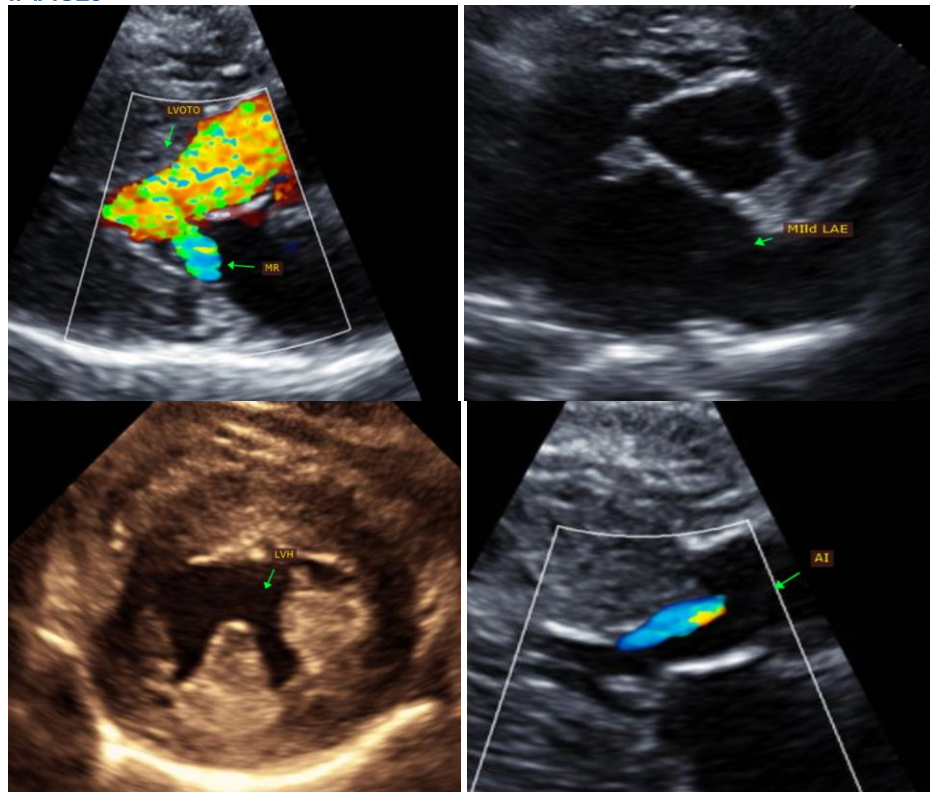
PLAN

- Recommend recheck echocardiogram in 6 months to assess for progression, sooner if clinical issues arise.

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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.

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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.

BREED

DSH

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info@sonopath.com

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

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