



**PATIENT**  
Lizzie Campbell

**PRESENTING CLINICAL SIGNS**

History: Hyperthyroid well-controlled on transdermal Methimazole. New grade III/VI heart murmur. Mucous membranes color is muddy, and patient seems dyspneic with stress. BP-220mmHg.

**SPECIES**  
Feline

**ECHOCARDIOGRAM FINDINGS**

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

**BREED**  
DSH

**Left ventricle:** The left ventricular wall is mild to moderately increased in dimension with a focal septal bulge. There is a diffusely hyperechoic endocardium consistent with fibrosis. Mild symmetric papillary muscle hypertrophy and remodeling.

**SEX**  
Female Spayed

**Left atrium:** The left atrium is normal in dimension. No obvious spontaneous contrast or thrombi seen.

**AGE**  
13 years

**Mitral valve:** The mitral valve is normal in structure and mobility. No obvious systolic anterior motion is seen.

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

**WEIGHT**  
12.2lbs

**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.

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**2-Dimensional Measurements**

Ao diam (cm)	1.0
LA diam (cm)	1.2
LA:Ao (Swe)	1.2
IVS thickness (cm)	0.68
LVID diastole (cm)	1.0
PW thickness (cm)	0.65
LVID systole (cm)	0.44
FS (%)	60

**Doppler Measurements**

PV Vmax (m/s)	0.55
AoV Vmax (m/s)	1.2
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

**IMAGING PERFORMED BY**

Pamela Harrigan,  
RDCS

**INTERPRETATION OF THE FINDINGS**

Hypertrophic cardiomyopathy (HCM) is a rule out diagnosis once a patient is deemed normotensive and euthyroid. Given that the thyroid is reportedly well controlled, systemic hypertension should be considered. The patients' blood pressure is significantly elevated and follow up is advised as below. Regardless, the degree of disease is mild, with mild to moderate LVH and no LA dilation. This would indicate the risk for clinical issues is low at this time. No obvious cause for the murmur is identified in this study making is likely physiologic in origin. No additional issues are identified.

**HOSPITAL NAME**

Norfolk County  
Veterinary Services

**REFERRING VET**

Dr. Poor

**INVOICE**

21290

**DATE**

9/30/21

The reported blood pressure is elevated and should be reassessed for accuracy particularly given no reported clinical signs of severe hypertension (retinal changes, etc.). Ideally obtain serial measurements in a controlled, low stress environment and continue until 3 consecutive readings plateau within 5mmHg of variability. If persistently >180mmHg despite a relatively calm demeanor, recommend institution of amlodipine to effect. Additionally, if deemed accurate, screening for predisposing underlying causes of



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SHT is recommended (Cushing's, PLN, adrenal tumor, etc.), as primary disease is relatively uncommon and a rule out diagnosis.

**SPECIES**  
 Feline

No medications are indicated prior to significant atrial dilation. It is important to note that no medications have been shown to definitively alter long term outcome at this stage, particularly in the absence of SAM.

**BREED**  
 DSH

- RECOMMENDATIONS**
- Given these findings, no medications are indicated.
  - Reassess BP as discussed.
  - No cardiac contraindication for general anesthesia. Mild IV fluid restriction is advised.
  - Anesthetic risk is considered mild, however judicious fluid administration is advised if needed with careful RR/RE monitoring to screen for fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Risk for complication with steroid use typically follows LA dilation, which in this case is mildly elevated. If needed, monitoring of RR/RE is advised particularly in the initiation phase.
  - Monitor at home for any respiratory issues or signs of blood clot events (neurologic change, paralysis, etc.).

**SEX**  
 Female Spayed

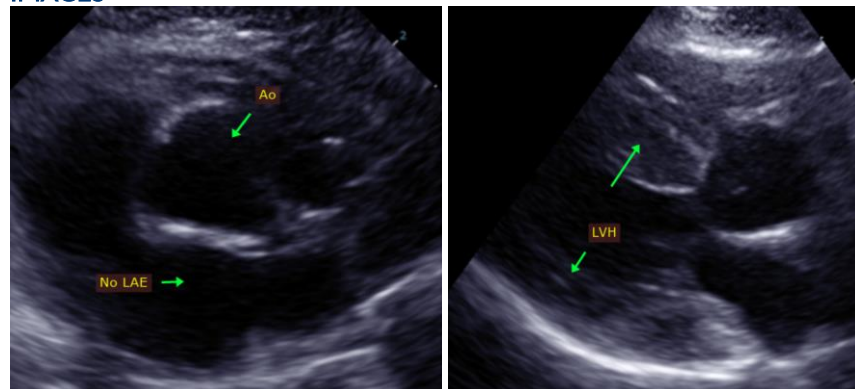
**AGE**  
 13 years

**WEIGHT**  
 12.2lbs

- PLAN**
- A recheck echocardiogram is recommended in 6 months to assess for progression, sooner if any issues arise in the interim.

**INTERPRETED BY**  
 Maggie Machen  
 Lamy, DVM  
 DACVIM (Cardiology)

**IMAGES**



**IMAGING PERFORMED BY**  
 Pamela Harrigan,  
 RDCS

**HOSPITAL NAME**  
 Norfolk County  
 Veterinary Services

**REFERRING VET**  
 Dr. Poor

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.

**INVOICE**  
 21290

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.

**DATE**  
 9/30/21

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