

**PATIENT**

Butt Folla

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Male Neutered

**AGE**

11.7 years

**WEIGHT**

11.5lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Greg Kuhlman, DVM

**HOSPITAL NAME**

Red River Animal  
Emergency Hospital &  
Referral Center

**REFERRING VET**

Dr. Kuhlman

**INVOICE**

47714

**DATE**

4/29/26

**PRESENTING CLINICAL SIGNS**

History: Grade 4/6 heart murmur. Asymptomatic.

-Abnormal PE/Chem/CBC/UA Results (4/15/26): T4- 32pmol/L. (4/9/26): Feline triple- Negative (4/9/26); Pro BNP- 119pmol/L.

Fractious; sedated with gabapentin and butorphanol.

**ECHOCARDIOGRAM FINDINGS**

Limited 2D, m-mode, color flow and doppler imaging is available due to patient temperament.

The left ventricular wall is normal in dimension. There is a mildly hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly remodeled and hyperechoic. The endocardium also appears remodeled. The left atrium is normal in size. The right atrium is normal in size. The right ventricle appears normal. The mitral valve is normal in structure and mobility. Blood flow through the RVOT is normal in velocity. LVOT velocity is unable to be assessed; an obstruction is suspected on 2D imaging. No pleural or pericardial effusion seen. No obvious cardiac tumors.

**CARDIAC CHART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) <small>(Moise, Pipers)</small>	LVIDd (cm) <small>(Moise, Pipers)</small>	LVWd (cm) <small>(Moise, Pipers)</small>	FS (%)	EF (%)
<b>NORMAL PARAMETER</b>	-----	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
<b>PATIENT</b>	5.2	NM	0.50	1.3	0.51	47	90
FELINE CARDIAC PARAMETERS	LA/AO <small>(Boon)</small>	LA/AO HEART BASE (Swe) <small>(Abbott)</small>	LA 2D short axis Base view (cm) <small>(Abbott)</small>	LVOT VEL <small>(m/s)</small>	RVOT VEL <small>(m/s)</small>	E max <small>(m/s)</small>	
<b>NORMAL</b>	<1.5	<1.3	<1.2	<1.6	<1.3	<0.9	
<b>PATIENT</b>	NM	1.3	1.3	NM	1.5	NM	

*\*Note: All measurements based upon multi-modal images and methods. An average value is reported.*

Adapted from June Boon, Veterinary Echocardiography, 1998

Abbott J & MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The suspected cause of the murmur is an LVOT obstruction. The LV is largely normal with no evidence of significant hypertrophy and monitoring is advised. These findings may suggest early HOCM; however, a normal stress-related variant cannot be ruled out. The LA is normal, and no additional issues are identified.

Given these findings, no medications are indicated. Should the degree of hypertrophy worsen, Atenolol may be recommended in the future.

Prognosis is open prior to assessing for progression.



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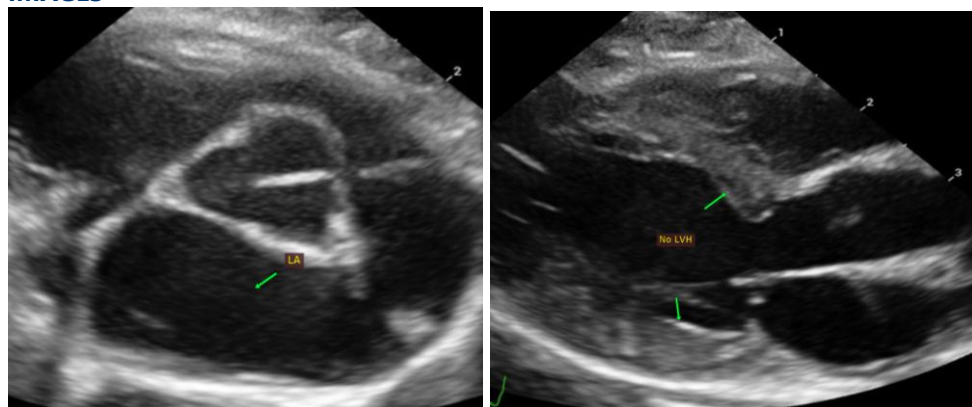
4/29/26

Anesthetic risk is considered mild. Additionally, steroids should be used with caution in general, as even a 'normal' heart can develop evidence of intolerance and fluid retention.

Monitor for any development of clinical signs, including labored breathing or signs of a blood clot (paralysis, neurologic change). Prognosis is guarded prior to assessing for progression.

A recheck echocardiogram is recommended in 6-12 months to screen for any evidence of progression.

## 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**

**Diplomate of the American College of Veterinary Internal Medicine (Cardiology)**

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