



**DATE PRESENTING CLINICAL SIGNS**

1.29.26 History: Presented on 1/20 for general malaise, hiding, not eating, vomited one time. Elevated BNP.  
-Pertinent abnormal PE/Chem/CBC/UA Results: CBC, Chem normal. T4 3.3, ProBNP 1488.  
-Current medications: Gabapentin 50 mg TID/PRN

**PATIENT**

Cassidy Kleeman -Sedation used: Not required to complete full diagnostic ultrasound.  
-Pertinent previous ultrasound results: No previous.  
-STAT: Not requested.  
-Imaging performed by: Stephanie Warga RDCS, RVT.

**SPECIES**

Feline

**BREED**

DSH

**SEX**

MN

**AGE**

1.20.15

**WEIGHT**

14.7lbs

**INTERPRETED BY**

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

**HOSPITAL NAME**

Essex Middle River VC

**REFERRING VET**

Dr. Franchini

**INVOICE**

46627

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode and limited doppler imaging is available. The left ventricular wall is borderline normal in dimension. No significant hypertrophy is seen. Normal LV chamber size. There is a mildly hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly hypertrophied and hyperechoic. The left atrium is normal. The right atrium is normal in size. The right ventricle appears normal. The mitral valve is normal in structure. Systolic anterior motion is suspected on 2D and color flow imaging. Blood flow through the RVOT is normal in velocity. Blood flow through the LVOT is mildly elevated with a dynamic profile. No significant MR. No pleural or pericardial effusion seen. No obvious cardiac tumors.

**CARDIAC CHART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LVWd (cm) (Moise, Pipers)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	3.5-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	6.7		0.52	1.6	0.52		
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Swe) (Abbott)	LA 2D short axis Base view (cm) (Abbott)		LVOT VEL (m/s)	RVOT VEL (m/s)	E max (m/s)
NORMAL	<1.5	<1.3	<1.2		<1.6	<1.3	<0.9
PATIENT	NM	1.4	1.3		2.2	1.6	NM

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 only abnormality identified is borderline LV hypertrophy with an intermittent/mild LVOT obstruction. This may reflect early HOCM (particularly in light of BNP elevation); however, a normal stressed-related variant is possible. Regardless, the LA is normal, which suggests low risk for complication. Serial echocardiography will be necessary to determine progression and clinical significance. No additional issues are identified.

Given these findings, no medications are indicated. Atenolol may be warranted should the obstruction worsen in the future; however, is not indicated at this time in this cat.

Prognosis is guarded prior to assessing for progression.

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. Additionally, steroids should be used with caution on older cats, as even a 'normal' geriatric heart can develop evidence of intolerance and fluid retention.

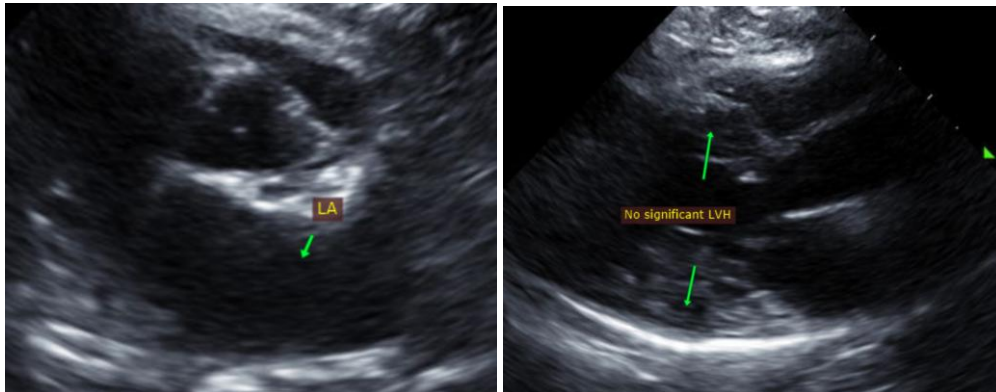
Monitor for any development of clinical signs, including labored breathing or signs of a blood clot (paralysis, neurologic change).

#### **PLAN**

BP and T4 should be monitored every 6 months.

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)**  
**info@sonopath.com**