


**PATIENT**

Boomer Lisovich

**PRESENTING CLINICAL SIGNS**

 History: Grade 2/6 heart murmur. Assess prior to dental.  
 Radiographs: WNL.  
 Sedation: butorphanol and midazolam due to aggression

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Male Neutered

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. 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 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 both the LVOT and RVOT is normal in velocity on spectral; however, DRVOTO is noted on color flow. No pleural or pericardial effusion seen. No obvious cardiac tumors.

**CARDIAC CHART**
**AGE**

4 years

**WEIGHT**

~10.2lbs

**INTERPRETED BY**

 Maggie Machen Lamy,  
 DVM, DACVIM  
 (Cardiology)

**IMAGING**
**PERFORMED BY**

 Michelle Bartus,  
 DVM

**HOSPITAL NAME**

 Valley Veterinary  
 Service Inc

**REFERRING VET**

Dr. Bartus

**INVOICE**

24860

**DATE**

6/20/22

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	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	4.6	NM	0.46	1.37	0.44	55	89
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	1.1	1.05		1.3	1.75	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 only cause of a murmur identified is a heart rate dependent flow obstruction through the right ventricle (DRVOTO), which is a physiologic finding (ie benign and of little clinical significance). This type of flow murmur will wax and wane secondary to tachycardia and volume changes. There is also mild LV remodeling and fibrosis, which may be indicative of early pathology or simply represent a normal variant. Regardless, the left atrial dimension is normal, and there is minimal risk for complication at this time. Serial echocardiography will be necessary to determine progression and clinical relevance of the findings in the future. A baseline Bp is recommended.

Given these findings, no medications are indicated at this time.

If needed, the risk for general anesthesia is low, however heart rate stimulating drugs such as atropine, glycopyrrolate or ketamine should be avoided unless medically necessary.



**PATIENT**

Boomer Lisovich

Risk for complication with steroid use typically follows LA dilation, which in this case is low. That being said, any cat can experience unexpected signs of intolerance and monitoring of RR/RE is advised particularly in the initiation phase.

**SPECIES**

Feline

Recommend recheck echocardiogram in 1 year to assess for progression or development of disease the pre-existing murmur may mask.

**BREED**

DSH

**SEX**

Male Neutered

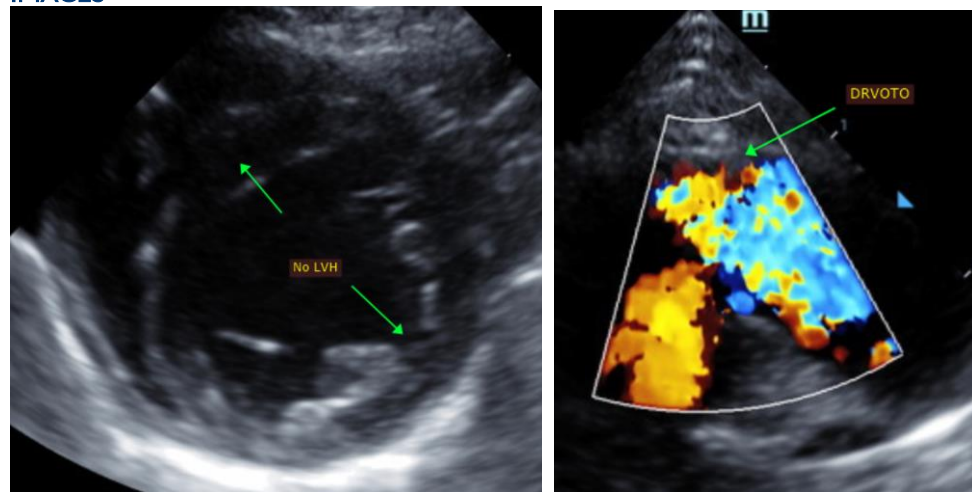
**AGE**

4 years

**WEIGHT**

~10.2lbs

**IMAGES**



**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

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.

**IMAGING PERFORMED BY**

Michelle Bartus,  
DVM

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

**HOSPITAL NAME**

Valley Veterinary  
Service Inc

**REFERRING VET**

Dr. Bartus

**INVOICE**

24860

**DATE**

6/20/22