



**PATIENT**

Echoes Luhrs

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Male Neutered

**AGE**

7.11.12

**WEIGHT**

10lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**HOSPITAL NAME**

Nexus Veterinary  
Specialists

**REFERRING VET**

Dr. Steele

**INVOICE**

32505

**DATE**

8.23.23

**PRESENTING CLINICAL SIGNS**

History: Pulmonary changes on rads (R middle, possibly R caudal). Chronic cough. Questionable mild cardiomegaly. Weight loss- likely related to reduced appetite. Hyporexia and chronic intermittent vomiting. The lung appears diffusely abnormal, and it is not clear what the area on radiographs truly represents. Limited chest ultrasound- On the right caudal chest, the region of concern is between heart and diaphragm, measuring approx. 1cm x 1.6cm. This consolidation vs mass has ring-down artifacts distal to it and ring-down artifacts within it +/- very small mineralization's. A single hypoechoic nodule is seen on right mid chest .53cm. Echo being performed to assess safely for steroid use.

- Current medications: Mirtazapine transdermal once daily.
- Sedation used: Not required to complete full diagnostic ultrasound.
- Pertinent previous ultrasound results: No previous.
- STAT: Not requested
- Imaging performed by: Andi Parkinson, BS, RDMS.

**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 mild fibrosis. The endocardium also appears mildly remodeled. The papillary muscles are normal in size 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. Trace TR. No other obvious valve regurgitation. Blood flow through both the LVOT and RVOT is normal in velocity. 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)	LWWd (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	4.5	188	0.46	1.36	0.47	52	87
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	1.3	1.2		0.9	1.0	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

Overtly normal cardiac structure and function. The LV wall thickness is normal, and there is no evidence of elevated left atrial pressure or underlying pathology at this time. There is mild remodeling and fibrosis of the left ventricular wall, which is considered likely a normal age-related finding. Given these findings, no medications are indicated.

Anesthetic risk is considered mild. With remodeling and diastolic stiffening, there is an elevated risk for fluid overload in this patient and judicious IV fluid use is recommended. Heart rate stimulating drugs such as atropine, glycopyrrolate or ketamine should be avoided unless medically necessary. **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.**

Recommend recheck echocardiogram in 1 year to assess for any progressive issues.

### 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.

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