

**PATIENT**

Zelda Markiewicz

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Female Spayed

**AGE**

7.5.08

**WEIGHT**

6.6lbs

**INTERPRETED BY**Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)**HOSPITAL NAME**Nexus Veterinary  
Specialists**REFERRING VET**

Dr. Steele

**INVOICE**

31854

**DATE**

7.14.23

**PRESENTING CLINICAL SIGNS**

History: Chronic vomiting. Weight loss that has progressed over the past year. Suspect chronic enteropathy +/- pancreatitis. Also has a history of stage II CKD. Grade 2/6 heart murmur that has been present at least since early July. Also had recent ALT elevation (transient vs persistent).

-Pertinent abnormal PE/Chem/CBC/UA Results: 7/3: UA--USG 1.014, pH 6.5, trace protein, suspect cocci, T4 3.1. CBC--MCV 58, PLT 86K (clumps suspected). Chem--SDMA 23, creat 2.5, BUN 60, K 3.2, ALT 172.

-Current medications: Cerenia 8mg once daily, Mirataz 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 appears mildly remodeled with borderline focal septal thickening. The free wall measures normal. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly hypertrophied 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 LVOT is normal in velocity. The RVOT velocity is elevated with a dynamic profile. No AI, Trace PI. No TR. 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)	LWVd (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	3.0	222	0.56	1.2	0.46	65	94
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	1.2	1.0		1.4	1.7	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 a borderline focal septal thickening. This may be indicative of early cardiac disease or may simply represent a normal variant in this senior cat. A screening BP and T4 are highly recommended. Regardless, the LA remains normal which would indicate clinical stability. Serial echocardiography will be necessary to determine progression and clinical significance. Additionally, the murmur is benign in origin due to a dynamic RVOT obstruction. This commonly occurs secondary to volume or heart rate changes.

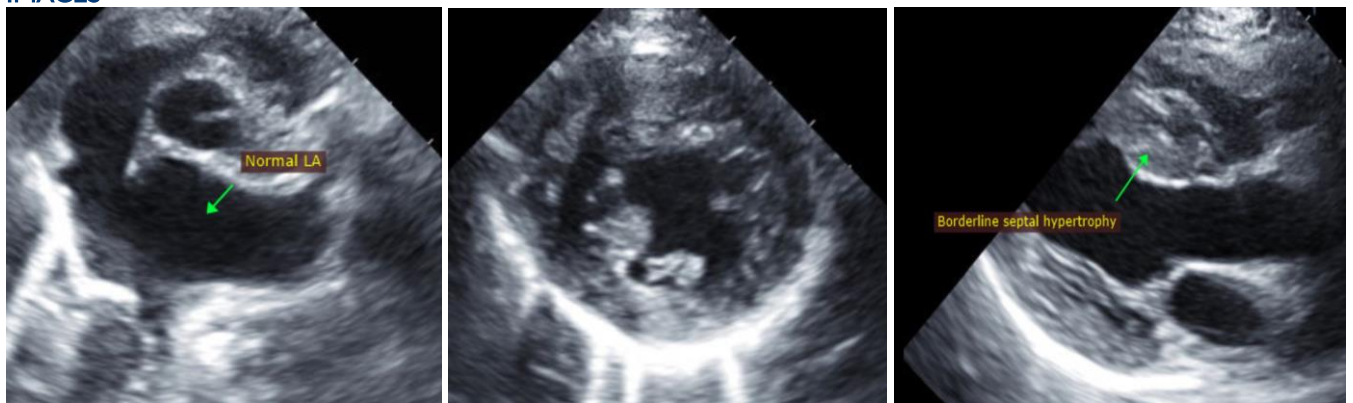
With a normal LA dimension, no medications are indicated.

Anesthetic risk is mild, however any cat with this degree of fibrosis and diastolic dysfunction will be at risk for iatrogenic IV fluid overload should they be needed in the future.

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

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.

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