



## PATIENT PRESENTING CLINICAL SIGNS

Mom Pennucci

History: Cardiac Workup  
Abnormal PE/Chem/CBC/UA Results: Chem/T4 normal. CBC- lymphopenia

## SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART

Feline

BREED

DSH

SEX

Spayed Female

AGE

10 Years

WEIGHT

N/A

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
<b>NORMAL PARAMETER</b>	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
<b>PATIENT</b>	--	173	0.55	1.56	0.51	52.6	87.5
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)	LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)	
<b>NORMAL PARAMETER</b>	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
<b>PATIENT</b>	1.0	1.0	1.0	--	0.95	NM	
Adapted from June Boon, Veterinary Echocardiography, 1998 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

### Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. No evidence of systolic anterior motion (SAM) of the mitral valve noted. The **left ventricle** presented primarily normal thicknesses with maintained linear contour and was not dilated nor restricted. Subjective mild sectorial basilar IVS hypertrophy in the area of the LVOT tract was present. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions and angles of the myocardium. The **left ventricular outflow** tract demonstrated turbulent to dynamic outflow with normal subjective structural integrity. Mild aortic valve insufficiency was present. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinetics. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted or extra cardiac pathology in the visible planes. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

### ULTRASONOGRAPHIC FINDINGS

- Overtly normal cardiac structure and function
- Subjective mildly prominent to mild hypertrophied basilar interventricular septum

### INTERPRETED BY

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

### IMAGING PERFORMED BY

Jessica Miller

### HOSPITAL NAME

Brenda King, VMD

### REFERRING VET

Dr. King

### INVOICE

14542

### DATE

3/28/22



**PATIENT**

Mom Pennucci

- Mild dynamic to turbulent LV systolic outflow with mild aortic valve insufficiency
- Normal left atrium

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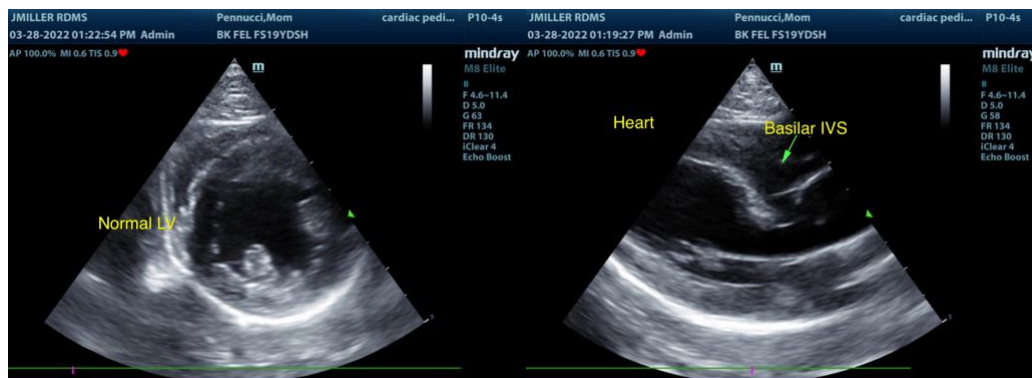
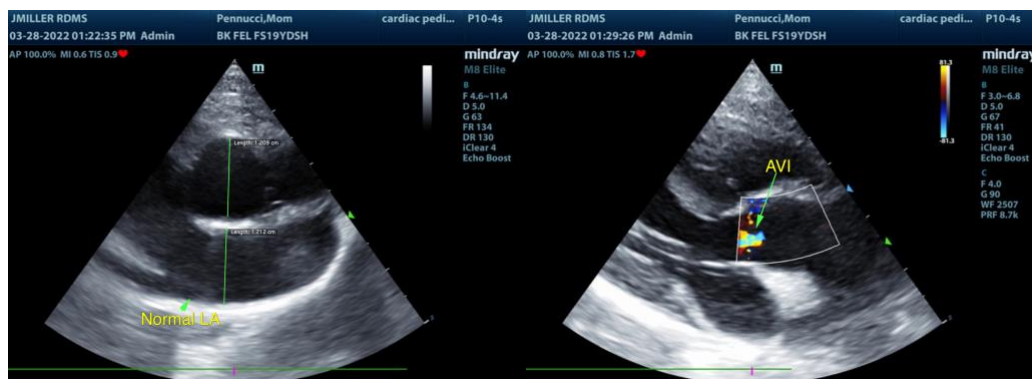
**DATE**

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No evidence of significant structural or functional cardiomyopathy. A murmur was not reported in this patient. However, if a murmur is present, the only source of the murmur noted was dynamic to turbulent LV outflow, which, in this case, is suspected to be secondary to mild fixed obstruction, owing to mildly prominent to hypertrophied basilar interventricular septum. The mild aortic valve insufficiency is not considered to be clinically significant, yet assessment of systemic BP suggested to rule out underlying hypertension. This is essentially a flow murmur and does not appear to be hemodynamically significant, given the lack of overall LV hypertrophy. Likewise, the normal left atrium size indicates that any potential risk associated with this suspected murmur is low. No indication for cardiac medications.

Conservative monitoring of the heart is reasonable at this time with serial sonographic monitoring suggested for further prognosis. Recheck echocardiogram suggested in 6 months or sooner if clinical signs consistent with heart disease develop or if murmur develops/current murmur intensity increases.





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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. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
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