



**PATIENT**

Otto Dunken

**SPECIES**

Feline

**BREED**

DLH

**SEX**

MN

**AGE**

13 years

**WEIGHT**

N/A

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Diane McFadden

**HOSPITAL NAME**

Fredon AH

**REFERRING VET**

N/A

**INVOICE**

15910

**DATE**

1/24/23

**PRESENTING CLINICAL SIGNS**

episode of collapse, arrhythmia, cardiomegaly.

Gave atenolol 1/4 tablet and 1/2 aspirin 81 mg last night

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT		155	0.50	1.71	0.50	42	76.4
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/)	
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
PATIENT	2.6	2.7	2.5	1.0	0.6	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 left ventricular wall exhibited minor myocardial remodeling and subtle increased endocardium echogenicity yet normal IVS and free wall thickness. LV systolic and subjective diastolic function is abnormal. Overtly normal LV volume was noted. Normal RV volume was also noted. The left atrium is severely dilated and bulbous in appearance with evidence of disorganized to forming thrombus in addition to mobile smoke. The right atrium exhibited concurrent moderate dilation without overt spontaneous contrast. The mitral valve is normal. No overt MR was noted on Doppler. Mild centralized TR was present. Blood flow through both the LVOT and RVOT was overtly normal in velocity with laminar systolic flow. Scant pericardial effusion is seen. No obvious cardiac tumors are visualized. Consistent arrhythmia is present.

**ULTRASONOGRAPHIC FINDINGS**

- Unclassified cardiomyopathy exhibiting severe biatrial enlargement with emerging LA thrombus
- Unclassified arrhythmia
- Mild pericardial effusion



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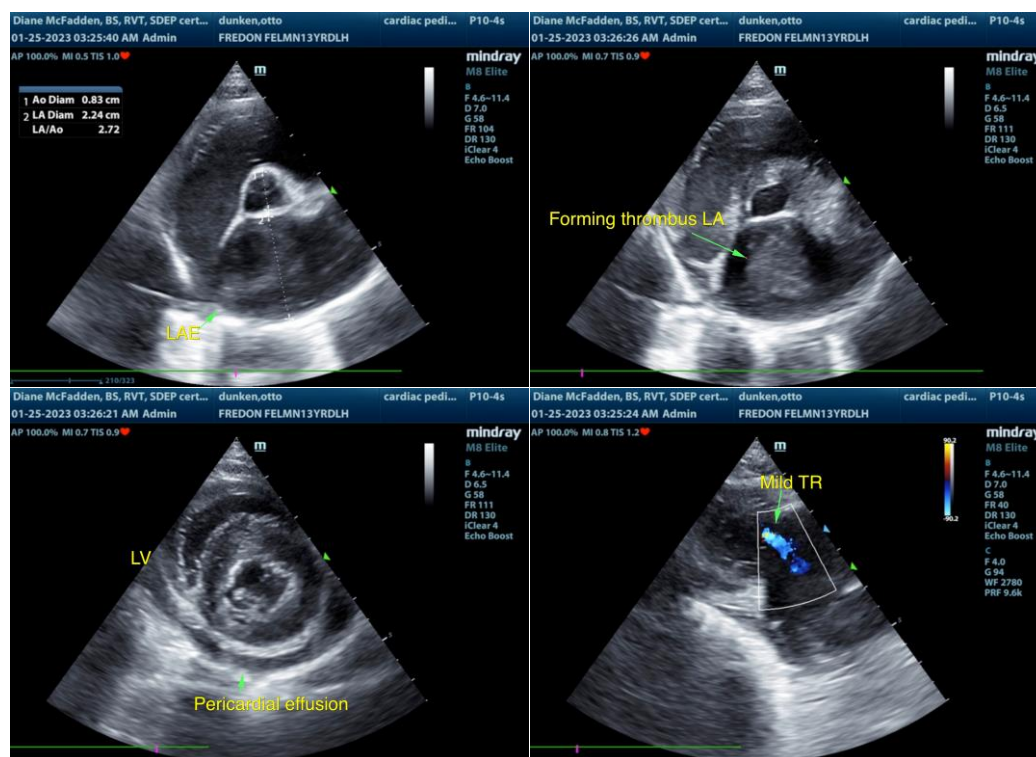
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## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The finding of biatrial enlargement in the face of overtly normal LV wall thickness is most suggestive of unclassified cardiomyopathy, although burn-out or end-stage HCM can have this appearance. Minor LV remodeling and possible fibrosis are noted and indicative of some degree of diastolic and systolic dysfunction. Evidence of early thrombus formation is present, putting this cat at exceedingly high risk for aortic thromboembolism going forward. The significant LA enlargement predisposes to left-sided heart failure, while the arrhythmia may potentially predispose to right heart failure.

Long-term prognosis is exceedingly guarded to likely poor. However, medical therapy is recommended. Consider hospitalization with as-needed oxygen therapy and injectable Lasix if the patient is unstable. Lasix 1.0-2.0 mg/kg PO BID, Clopidogrel 75 mg/tab (1/4 tab) PO SID, and off-label Pimobendan 1.25 mg PO BID are suggested. ECG is recommended if possible for further clarification of the arrhythmia with monitoring of renal parameters and systemic BP going forward, advised. Recheck echocardiogram is suggested in 3-6 months, sooner if progressive evidence of CHF, development of progressive malignant arrhythmia, or evidence of aortic thrombus are noted.





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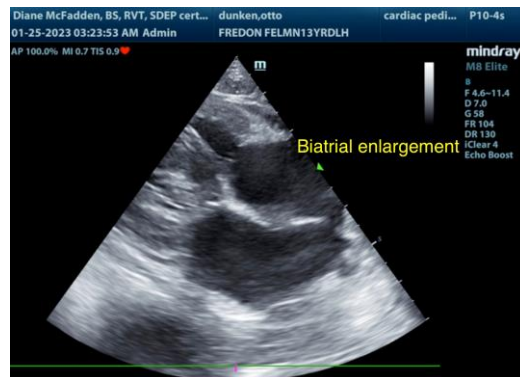
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)**  
info@SonoPath.com