



**PATIENT**

Kuroneko Nicolò

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Male Neutered

**AGE**

7.30.07

**WEIGHT**

9.7lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**HOSPITAL NAME**

Everhart Veterinary  
Hospital

**REFERRING VET**

Dr. Hess

**INVOICE**

27154

**DATE**

10.27.22

**PRESENTING CLINICAL SIGNS**

History: Grade 2/6 murmur, arrhythmia.  
-Pertinent abnormal PE/Chem/CBC/UA Results: Hyperthyroid.  
-Current medications: Methimazole 5mg BID.  
-Blood pressure: 140mmHg Cardell.  
-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.

**ELECTROCARDIOGRAPHIC FINDINGS**

A six lead ECG is available at both 25 and 50mm/s; 2mm/mV. The underlying rhythm is sinus in origin with an average heart rate of 250bpm. P for every QRS complex and vice versa. The P wave morphology is positive with a normal dimension. Normal PR. The QRS is inverted in lead 2. MEA is shifted left. Isolated APCs are seen throughout; singles only. A single VPC is identified. No pauses or other dysrhythmias observed.  
ECG diagnosis: Sinus tachycardia with isolated APCs and a single VPC.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is mildly increased in dimension with regions of irregularity. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are remodeled. Adequate systolic function. The left atrium is severely dilated and bulbous in appearance. No obvious spontaneous contrast (smoke) seen. The right atrium is normal. The right ventricle appears largely normal. The mitral valve is normal in structure and mobility. Mild central MR. Blood flow through both the LVOT and RVOT is normal in velocity. Trace TR. Mild AI. No pericardial or pleural effusion seen. No obvious cardiac tumors.

**CARDIAC CHART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) <small>(Moise, Pipers)</small>	LVIDd (cm) <small>(Moise, Pipers)</small>	LWWd (cm) <small>(Moise, Pipers)</small>	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	3.5-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	4.4	250	0.74	1.5	0.68	43	80
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	2.1	2.0		1.1	0.9	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 finding of severe LA dilation in the face of mildly increased LV wall thickness is most consistent with Unclassified Cardiomyopathy (UCM); however, end-stage HCM is also possible. Mild MR is noted as the cause of the murmur, which appears to be secondary to annular stretch. Regardless of categorical classification, the degree of disease is severe with severe LA dilation. A mild aortic insufficiency is noted; however, the reported blood pressure is normal. No additional issues are identified.

The ECG does show isolated APCs and a single VPC. The underlying rhythm is sinus tachycardia, which is likely due to stress and potentially early decompensation. No treatment is advised at this time as hopefully stabilizing the cardiac disease will help improve the frequency of the arrhythmia. Follow up is advised.

Lifelong medications are warranted as below including diuretic therapy, given high risk for decompensation even without reported clinical signs.

The mean survival time for cats once CHF develops is 8-12 months, however most are able to maintain a good quality of life on medications. There will always remain risk for recurrent CHF, development of blood clots, and/or malignant arrhythmias/sudden death in the future. Monitoring of sleeping breathing rates at home is recommended as the best way to screen for recurrent/impending CHF at home.

Elective anesthesia, fluid or steroid therapy is not advised.

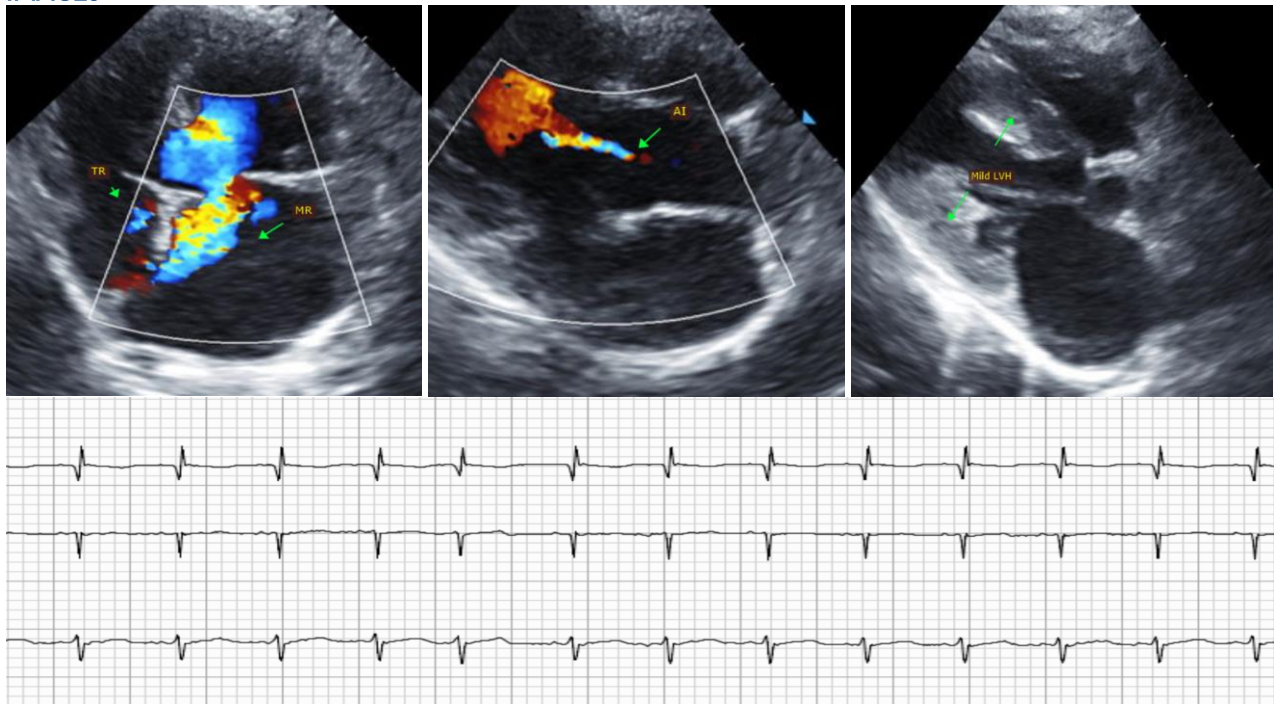
### PLAN

Institute diuretic Lasix 1mg/kg PO q12h. If able, institute blood thinner Clopidogrel (Plavix) 75mg tablets; give ¼ tab orally once daily (NOTE: this medication is very bitter on the cut edges). Institute Pimobendan 1.25mg PO BID.  
\*Note: If patient is difficult to medicate, Lasix and Plavix would be most important.

Recheck renal values and BP in 10-14 days to ensure tolerance of medications. If normotensive and eating well, consider addition of an ACEI at that time (if any question, do not utilize).

A recheck echocardiogram and ECG is recommended in 6 months to assess 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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