

**PATIENT**

Sonny Reid

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Male Neutered

**AGE**

14 years

**WEIGHT**

7.9lbs

**INTERPRETED BY**Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)**IMAGING PERFORMED BY**

Kim Liedberg

**HOSPITAL NAME**

SVS Imaging WI

**REFERRING VET**

Dr. Kamps

**INVOICE**

27113

**DATE**

10/25/22

**PRESENTING CLINICAL SIGNS**

History: Patient diagnosed with hyperthyroidism and owner elected to treat with I 131 iodine. Chest radiograph taken on exam and reveal an enlarged heart. Assess prior the I 131 treatment.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is normal with mild remodeling and irregularity. There is a diffusely hyperechoic endocardium consistent with fibrosis. The systolic function is normal. The papillary muscles are mildly remodeled and hypertrophied. The left atrium is moderately dilated. No obvious spontaneous contrast; no obvious thrombus. No MR. The right ventricle appears normal. Moderate RA dilation. Mild central TR. Blood flow through the RVOT and LVOT is low normal velocity. No pericardial or pleural effusion. 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	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	3.6	210	0.52	1.5	0.48	44	79
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	1.7	1.7		1.2	1.4	NM

*\*Note: All measurements based upon multi-modal images and methods. An average value is reported.*  
 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 moderate biatrial enlargement in the face of normal LV wall thickness is most consistent with Unclassified Cardiomyopathy (UCM), however, end stage HCM, tachycardia-induced cardiomyopathy (as is seen with uncontrolled hyperthyroidism), or some prior historical infectious or inflammatory insult to the myocardium cannot be definitively ruled out. No additional issues are identified.

Regardless of categorical diagnosis, the finding of moderate biatrial dilation puts the patient at risk for complication. No symptoms are mentioned, or obvious effusion seen, and diuretic therapy is likely unnecessary. That being said, Pimobendan and Plavix are certainly warranted to hopefully provide cardiac support and decrease the risk of a blood clot event.

It is unclear in the history if the T4 is controlled at this point (through oral medication) or not. If uncontrolled, Atenolol may be warranted to help reduce heart rate until the thyroid is normalized. If already controlled, this is likely unnecessary. Regardless, this is certainly a contraindication for I-131 therapy. Recommend reassess after 6 months of thyroid control (orally) to determine if the

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structural disease is primary or simply secondary. If resolved and atrial dilation normalized, we can say the findings were secondary to hyperthyroidism and proceed with I-131 at that time.

**SPECIES**

Feline

The prognosis is guarded prior to assessing for progression/regression. Patient may be at risk for CHF, development of blood clots, arrhythmias, and/or sudden death in the future.

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DSH

Monitoring of sleeping breathing rates at home is recommended as the best way to screen for recurrent CHF at home.

**SEX**

Male Neutered

**PLAN**

Consider 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 (off label use) 1.25mg PO q12h. If the thyroid is poorly controlled and the patient is tachycardic, low-dose Atenolol may be warranted until the thyroid is normalized. Otherwise, this is likely unnecessary.

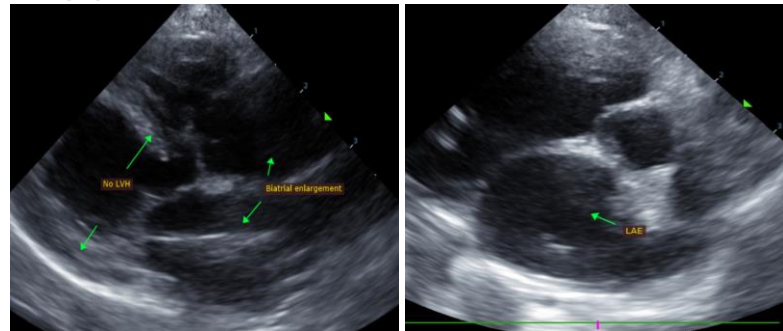
A recheck echocardiogram is recommended in 6 months to assess for progression.

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**IMAGES****WEIGHT**

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 DVM, DACVIM  
 (Cardiology)

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.

**IMAGING PERFORMED BY**

Kim Liedberg

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.

**HOSPITAL NAME**

SVS Imaging WI

 Maggie Machen Lamy, DVM  
 Diplomate of the American College of Veterinary Internal Medicine (Cardiology)  
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