



**PATIENT**

Simba Costello

**SPECIES**

Feline

**BREED**

Maine Coon

**SEX**

Neutered Male

**AGE**

11 Years

**WEIGHT**

22.9 Pounds

**INTERPRETED BY**

Sara Brethel, DVM,  
DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Dr. Annette Anleu

**HOSPITAL NAME**

Ellwood AH

**REFERRING VET**

Dr. Daniel Jones

**INVOICE**

37279

**DATE**

6/1/26

**PRESENTING CLINICAL SIGNS**

History: Cardiac work-up was warranted d/t possible left axis deviation shown on EKG. Pet was sedated for echocardiogram with Torbugesic, Midazolam, and isoflurane. Please comment on anesthesia risk as a dental procedure is planned.

Abnormal PE/Chem/CBC/UA Results: Basophils elevated: 0.111 (0-0.1) Creatine Kinase elevated: 468 (64-440) ProBNP normal: 61 (0-100).

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

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>	10.4	NM	0.6	1.54	0.58	43.85	--
FELINE CARDIAC PARAMETERS	LA/AO (M-mode)	LA/AO HEART BASE (Sisson)	LAD LA MAX 4 Chamber		LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)
<b>NORMAL PARAMETER</b>	<1.5	1.6	0.7-1.7		<1.6	<1.3	40-60
<b>PATIENT</b>	NM	1.13	1.5		0.94	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

LVIDs: 0.88

**Cardiac Presentation**

The left atrium is within normal limits. The mitral valve leaflets are normal and there is no mitral regurgitation. There is no evidence of systolic anterior motion of the mitral valve and no evidence of a left ventricular outflow tract obstruction. There is equivocal concentric hypertrophy of the left ventricle. The right atrium is normal. The tricuspid valve is normal without evidence of tricuspid regurgitation. The right ventricle appears to have preserved systolic function subjectively. The aortic and pulmonic valves are normal without evidence of insufficiency. Aortic and pulmonic outflow velocities are within normal limits. The aorta and PA are normal along with the associated PA branches. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

**ULTRASONOGRAPHIC FINDINGS**

- Equivocal concentric hypertrophy of the left ventricle
- Normal left atrial size

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**



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The patient has equivocal changes to the left ventricular wall. This can represent early hypertrophic cardiomyopathy changes, however, there has to be a significant enough amount of hypertrophy to cause elevations in proBNP. This likely corresponds to the left anterior fascicular block described on the previously performed ECG. Recommend ensuring the patient is thyroid and normotensive. No contraindications to elective anesthetic procedures.

Recommend obtaining a blood pressure on the patient to ensure it is <160mmHg. If the blood pressure is elevated recommend following ACVIM guidelines for systemic hypertension and treating if indicated.

Standard perioperative fluid rates should be well-tolerated. Medications like dexmedetomidine and other alpha 2 agonists are best avoided. Ketamine is also best avoided. Anticholinergics can be used in the case of a clinically significant bradyarrhythmia (i.e., bradycardia with concurrent hypotension). If the patient is on an ACEi, recommend not giving this therapy the day of anesthesia.

A recheck echo is recommended and 6-12 months, sooner if the patient is developing cardiovascular clinical signs.



**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.

Sara Brethel DVM, DACVIM (Cardiology)

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