



PATIENT

Leo Jacobson

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

14 Years

WEIGHT

4.5 kg

INTERPRETED BY

Sara Brethel DVM,
DACVIM (Cardiology)

IMAGING PERFORMED BY

Dr. Greg Kuhlman

HOSPITAL NAME

Red River AEH &
Refferal Center

REFERRING VET

Dr. Greg Kuhlman

INVOICE

35412

DATE

11/6/25

PRESENTING CLINICAL SIGNS

History: Wellness bloodwork on 10/13/2025 revealed an elevated pro-BNP (409 pmol/L). An echocardiogram was recommended to evaluate cardiac function prior to proceeding with a dental procedure.

Abnormal PE/Chem/CBC/UA Results: On physical examination today, a grade 4/6 heart murmur was auscultated. Blood pressure: 180 mmHg (before echo). The patient was mildly stressed from having to lie on his side.

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	4.5	NM	0.5	1.33	0.68	--	--
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/)
NORMAL PARAMETER	<1.5	1.6	0.7-1.7		<1.6	<1.3	40-60
PATIENT	--	1.72	--		1.35	1.37	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 atrium is mildly to moderately enlarged. 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 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

- Left ventricular concentric hypertrophy
- Mild to moderate left atrial enlargement

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS



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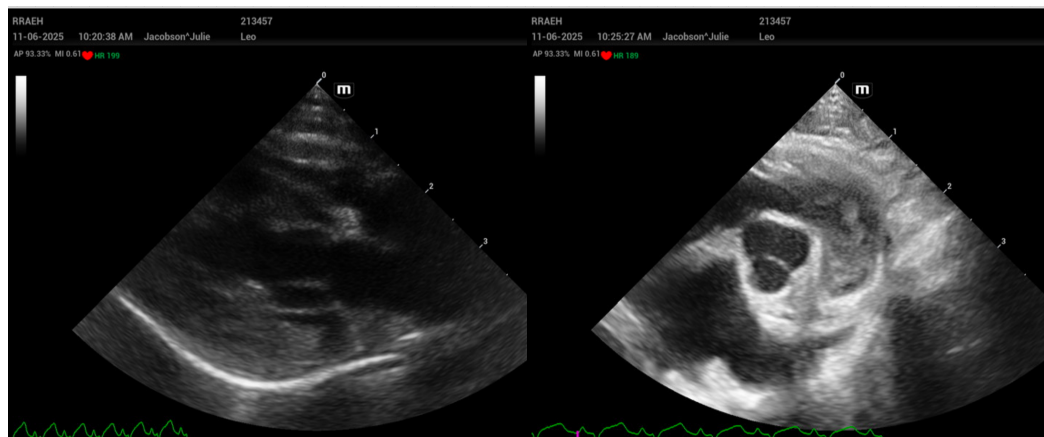
DATE

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The patient has evidence of left ventricular concentric hypertrophy and is classified as a stage B2 due to the increased left atrial size. Once the patient is determined to have normal blood pressure, elective anesthetic procedures can be proceeded with, however, there is a mildly increased risk due to the increased left atrial size. Once the patient has healed from the dental, you can move forward with clopidogrel therapy. Clopidogrel therapy at 18.75mg (75mg tablet: ¼ tablet by mouth every 24 hours) is recommended to help reduce the risk for a blood clot. Since this can be a progressive condition, serial monitoring is recommended. It's recommended to recheck an echocardiogram in 6 months, sooner if the patient develops cardiovascular clinical signs.

The reported blood pressure is elevated and recommend ensuring the patient's blood pressure is normal prior to moving forward with elective anesthetic procedures. Also recommend ensuring the patient is euthyroid. If the blood pressure is normal and the patient is euthyroid, then the patient has underlying hypertrophic cardiomyopathy.

Can consider seeking out an institution and enrolling in the HALT study. This is looking at a novel medication used to treat left ventricular concentric hypertrophy in cats. Empirically starting this novel therapy is not recommended at this time until further evidence from the study is obtained. At this time, this medication is conditionally approved by the FDA. The medication is called rapamycin or sirolimus.



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.

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info@SonoPath.com



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