



PATIENT

Samuel Gulstad

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

10 Years

WEIGHT

10.28 pounds

INTERPRETED BY

Sara Brethel DVM,
DACVIM (Cardiology)

IMAGING PERFORMED BY

Dr. Andrea Nason

HOSPITAL NAME

Caravan Vet

REFERRING VET

Dr. Andrea Nason

INVOICE

15103

DATE

04/14/26

PRESENTING CLINICAL SIGNS

Samuel needs a dental procedure, likely with extractions He had an echo w/SonoPath in July and August of 2025 - originally diagnosed with Hypertrophic obstructive cardiomyopathy, stage B-1 secondary to SAM and dynamic left ventricular outflow tract obstruction. He was started on Atenolol 12.5mg/mL Oil Susp. Chicken - Give 0.32mL (4mg) PO q 12hrs. No changes on his recheck echo in August. Echocardiogram and chest radiographs to assess for changes/progression and/or concerns for anesthesia/dental procedure

Abnormal PE/Chem/CBC/UA Results: Crea 1.5, BUN 26, USG 1.049 BNP 243 (was 130 ~ 6 months ago) T4 1.5 Blood pressure 140 systolic

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	4.67	NM	0.5	1.36	0.61	50.73	--
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)	LVIDs (m/s)
NORMAL PARAMETER	<1.5	1.6	0.7-1.7		<1.6	<1.3	
PATIENT	NM	1.19	1.7		--	--	0.67
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 mitral valve leaflets are normal and there is mild mitral regurgitation. There is no prolapse of the mitral valve leaflets. The left atrial size is within normal limits. Left ventricular systolic function appears preserved. Left ventricular diastolic dimensions are within normal limits. There is evidence of systolic anterior motion of the mitral valve. There is evidence of a kissing lesion at the level of SAM and the left ventricular myocardium appears hyperechoic in some regions. Left ventricular walls measure hypertrophied. There is normal right atrial size without evidence of tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and no evidence of pulmonary hypertension on the images provided. The right ventricle appears normal in structure and function subjectively. The aortic and pulmonic valves have normal morphology. There is no evidence of pulmonic or aortic insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

Chest Radiographs



PATIENT

No signs of congestive heart failure. The cardiac silhouette measures within normal limits.

Samuel Gulstad

ULTRASONOGRAPHIC FINDINGS

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- Left ventricular concentric hypertrophy.
- Mitral regurgitation.
- Normal left atrial size on short axis.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

SEX

Neutered Male

There's no evidence of congestive heart failure. The patient's left atrium is normal on short axis and at the upper limits of normal to mildly increased on long axis assessment. I think either way, the patient is an adequate candidate for elective anesthetic procedures. I would recommend giving half a dose of atenolol the morning of anesthesia. So giving 2.0 mg as opposed to the current 4.0 mg. That is just for the morning. The patient can resume their normal dose that evening.

AGE

10 Years

No additional medications are recommended at this time. Cannot determine the severity of the obstruction as outflows are not provided on the images. Because of the left atrium being at the upper limits of normal to mildly increased on long axis, I would recommend a recheck echo in six months, sooner if cardiovascular clinical signs are developing.

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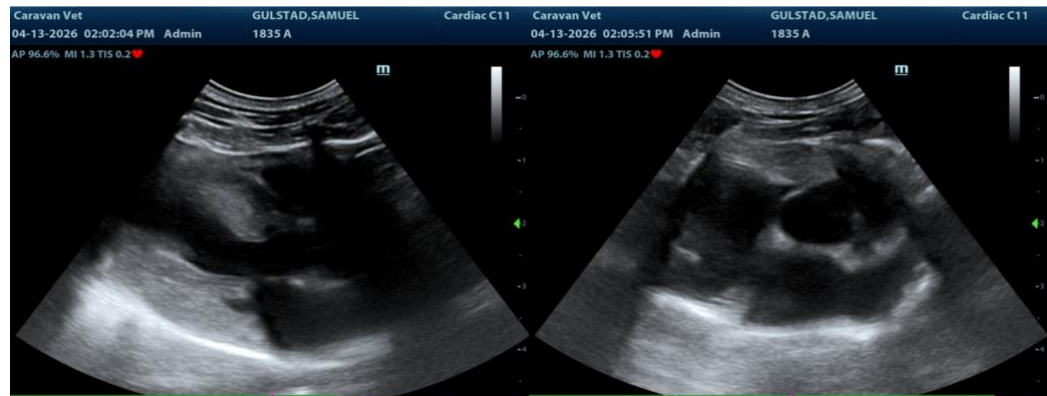
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Sara Brethel DVM, DACVIM (Cardiology)

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