



PATIENT

Frank Gustafson

SPECIES

Feline

BREED

DSH

SEX

Male Neutered

AGE

14 years

WEIGHT

8lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Jessica Bailes

HOSPITAL NAME

All Creatures Great &
Small Veterinary
Clinic

REFERRING VET

Dr. Sadahiro

INVOICE

31691

DATE

7/6/23

PRESENTING CLINICAL SIGNS

History: Diagnosed with hyphemia secondary to systemic hypertension. On amlodipine 1.25mg PO q 24H. Grade 3/6 heart murmur.

Abnormal PE/Chem/CBC/UA Results: BW/urinalysis consistent w/ stage 1-2CKD w/ proteinuria. U/A: SG 1.012, PH 6.0 Prot 1+, UPC elevated 0.7 RBC 11-20 (secondary to Cysto suspected) Chem: BUN 36, Creat 1.6 T4: WNL CBC: WNL.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is mildly increased in dimension. There is a diffusely hyperechoic endocardium consistent with fibrosis. Mild symmetric papillary muscle hypertrophy and remodeling. The right ventricle is subjectively normal in size and morphology. There is mild left atrial enlargement present. No right atrial enlargement present. Normal RVOT velocity; however, the profile is dynamic. No TR. Mildly elevated aortic outflow velocity consistent with a dynamic obstruction. There is no obvious systolic anterior motion (SAM) of the mitral valve present. No MR. There is no pericardial effusion noted. No pleural effusion appreciated. No obvious cardiac tumors.

CARDIAC CHART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LVWd (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	NM	0.63	1.15	0.64	54	92
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	1.5	1.3	1.2		1.4	2.8	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

Hypertrophic cardiomyopathy (HCM) is a rule out diagnosis once a patient is deemed normotensive and euthyroid. In a cat with historical systemic hypertension, this may be a primary or secondary pathology. Serial blood pressure is advised ensuring the readings maintain <160mmHg in hospital. Regardless, the left atrium is normal indicating low risk for complication at this time. The murmur is due to a dynamic RVOT obstruction, which is a benign physiologic abnormality. This type of murmur is exacerbated by volume changes which are likely present in a cat. No additional issues are identified.

Given the mild findings on today's exam, no medications are clearly indicated. Atenolol may be recommended in the future should SAM be identified and/or the hypertrophy/LA dimension worsen. It is important to note however that no medications have been shown to definitively alter long term outcome at this stage, particularly in the absence of SAM.



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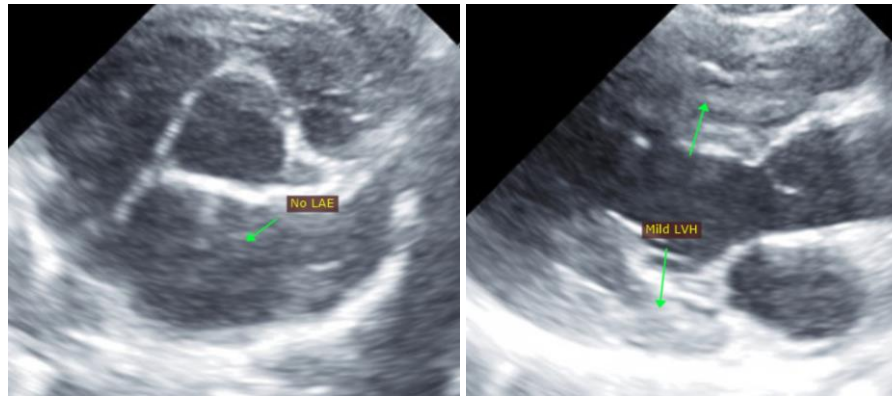
Monitor at home for any respiratory issues or signs of blood clot events (neurologic change, paralysis, etc.). Anesthetic risk is considered mild, however judicious fluid administration is advised if needed for CKD with careful RR/RE monitoring to screen for fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine).

PLAN

Reassess blood pressure and up-titrate medications to effect. Monitor BP/T4 every 6 months lifelong.

A recheck echocardiogram is recommended in 6 months to assess for progression, sooner if any issues arise in the interim.

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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