

PATIENT

Oliver Gresham

SPECIES

Feline

BREED

Bengal

SEX

Neutered Male

AGE

8 Years

WEIGHT

9 pounds

INTERPRETED BY

Sara Brethel, DVM,
DACVIM (Cardiology)

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

Banfield Salem

REFERRING VET

Dr. Marcberg

INVOICE

13835

DATE

02/16/26

PRESENTING CLINICAL SIGNS

- Patient did not tolerate DKT/sevo for dental prophy. heartrate was in the 40s and did not improve with reversal of Dexdomitor and 2 doses of glycopyrrolate. occasional 2nd degree AV blocks were noted. Patient recovery was unremarkable.

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	4.1	NM	0.42	1.3	0.58	40.76	NM
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/)
NORMAL PARAMETER	<1.5	1.6	0.7-1.7		<1.6	<1.3	
PATIENT	1.03	1.1	1.5		NM	1.2	0.77
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

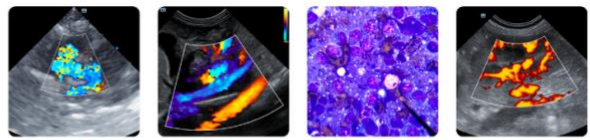
The left atrium is within normal limits. The rhythm is irregular. The mitral valve leaflets are normal and there is no mitral regurgitation. There is no evidence of systolic anterior motion of the mitral valve and no evidence of a left ventricular outflow tract obstruction. There is equivocal concentric hypertrophy of the posterior wall. 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. 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.

EKG

There are positive upright P waves in lead II that do not correlate with the QRS complexes. The patient is bradycardic. There are several instances of multifocal ventricular premature complexes occasionally occurring as couplets.

ULTRASONOGRAPHIC FINDINGS

- Third degree AV block with multifocal VPCs.
- Irregular rhythm.
- Equivocal concentric hypertrophy of the posterior wall.



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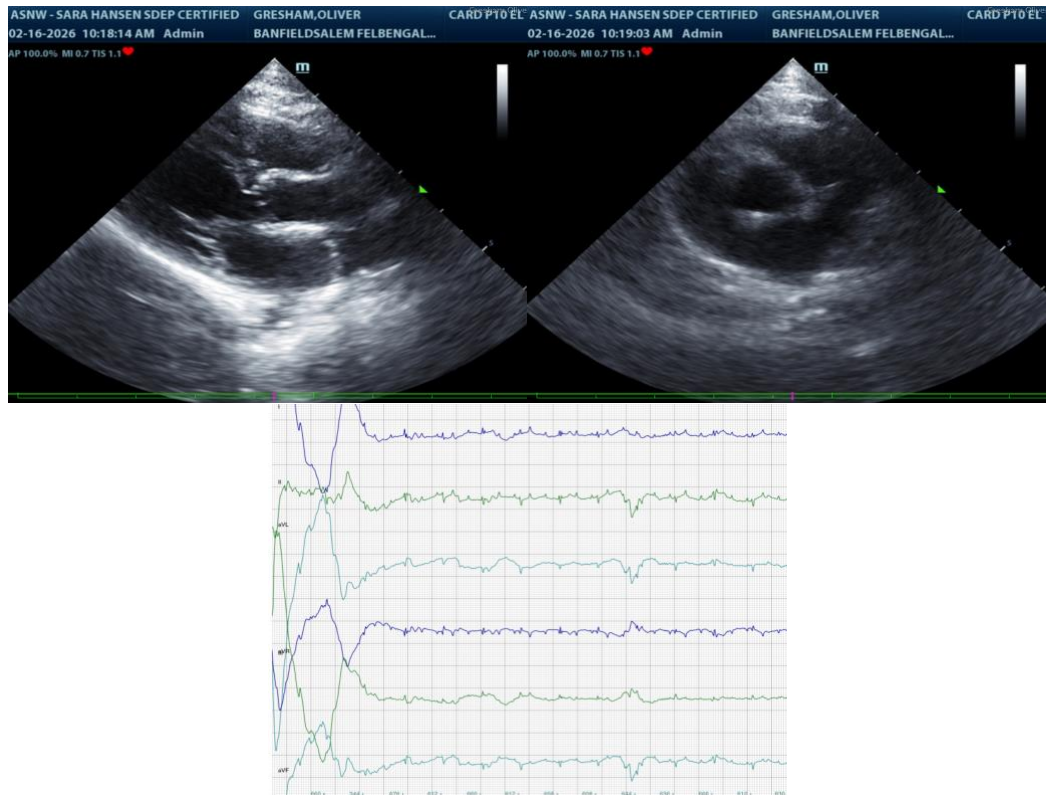
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient has equivocal concentric hypertrophy. Recommend him ensuring he is normotensive and euthyroid. He also has evidence of third-degree AV block. This is not a common isolated finding in cats, and if the patient is sedated, which it's reported that butorphanol and gabapentin were given, it could worsen the underlying atrioventricular block. I recommend obtaining an electrocardiogram without sedation, and I recommend avoiding further sedation in the future.

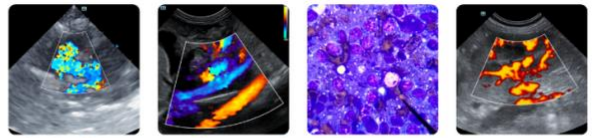
If the escape rate off of sedation is less than 100, interventional procedures such as a pacemaker implementation maybe indicated. Because of the nature of the rhythm, I would recommend referral to a veterinary cardiologist for further evaluation and a workup. Other diagnostics to consider include an abdominal ultrasound, full feline infectious disease panel testing, including toxoplasmosis and Bartonella, ensuring full blood work is normal, and obtaining three view chest radiographs.

A Holter monitor can also be considered. If not moving forward with a referral and pending that recheck electrocardiogram, a recheck echo is recommended in six months. Unfortunately, patients with third degree AV block are at an increased risk for passing away suddenly.



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



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can be of any further assistance please contact me.

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