



PATIENT

Max Belle

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

12 Years

WEIGHT

8.71 Pounds

INTERPRETED BY

Sara Brethel, DVM,
 DACVIM (Cardiology)

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

Creekside VC

REFERRING VET

Dr. Angstrom

INVOICE

36623

DATE

4/16/26

PRESENTING CLINICAL SIGNS

History: Clinical Exam Findings: Diagnosed with hyperthyroidism in 9/2024. Not able to administer thyroid medications reliably. Patient has I-131 treatment scheduled and pursuing echocardiogram to assess heart health. Max had a quiet murmur on 1/2/26 with an elevated Pro-BNP 3/25/26.

ABNORMAL Labwork Values: 3/25/26: TT4 9.2, SDMA 12 Creatinine 0.6, USG 1.010 ProBNP 139 9/2024: TT4 3.1, TT4-ED 57.9 SDMA 10 Creatinine 0.9, For ECHO Only: Blood Pressure: Will provide at time of echocardiogram, HR/RR/BP: 230/55, Is there a Heart Murmur? If so, please grade: Quiet murmur, no grade was notated, Current Medications: None

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	3.95	NM	0.46	1.57	0.47	50.95	--
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	1.36	1.31	1.55		0.88	1.1	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: 0.77

Cardiac Presentation

The mitral valve leaflets are normal and there is no mitral regurgitation. The left atrial size is normal. There is no evidence of systolic anterior motion of the mitral valve and no evidence of a left ventricular outflow tract obstruction. Left ventricular systolic and diastolic function is within normal limits. There is no evidence of left ventricular concentric hypertrophy. 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 and the corresponding outflow velocities are within normal limits. 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.



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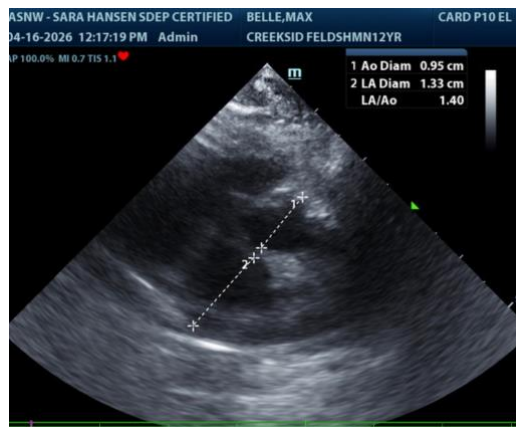
4/16/26

ULTRASONOGRAPHIC FINDINGS

- Structurally normal heart

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The heart is structurally normal. The cause of the elevated proBNP may be secondary to the patient's underlying hyperthyroidism. The cause for the murmur is not identified. Based upon the images provided, I would recommend moving forward with i131 therapy for the patient's hyperthyroidism. Can consider a recheck echo in 10-12 months. Alternatively, can consider rechecking the proBNP in 6 months. If remains increased, then performing a rechecking echo at that time. Also recommend ensuring that the patient is normotensive.



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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