

**PATIENT**

Blackie Busby

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

4 Years

**WEIGHT**

11 Pounds

**INTERPRETED BY**

Sara Brethel, DVM,  
 DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Kathleen Byrnes

**HOSPITAL NAME**

Chatham VS

**REFERRING VET**

Dr. Scott

**INVOICE**

36836

**DATE**

12/9/25

**PRESENTING CLINICAL SIGNS**

History: P presented for echo due to murmur.

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
<b>NORMAL PARAMETER</b>	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
<b>PATIENT</b>	5.0	111	0.56	1.53	0.7	--	--
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/)	
<b>NORMAL PARAMETER</b>	<1.5	1.6	0.7-1.7	<1.6	<1.3	40-60	
<b>PATIENT</b>	--	1.78	--	0.86	0.73	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: 0.56

**Cardiac Presentation**

The rhythm is irregular and bradycardic. The left atrium is 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 left ventricular 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. 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**

- Irregular rhythm
- Bradycardia
- Concentric hypertrophy
- Left atrial enlargement

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The patient has evidence of left ventricular concentric hypertrophy and is classified as a stage B2 due



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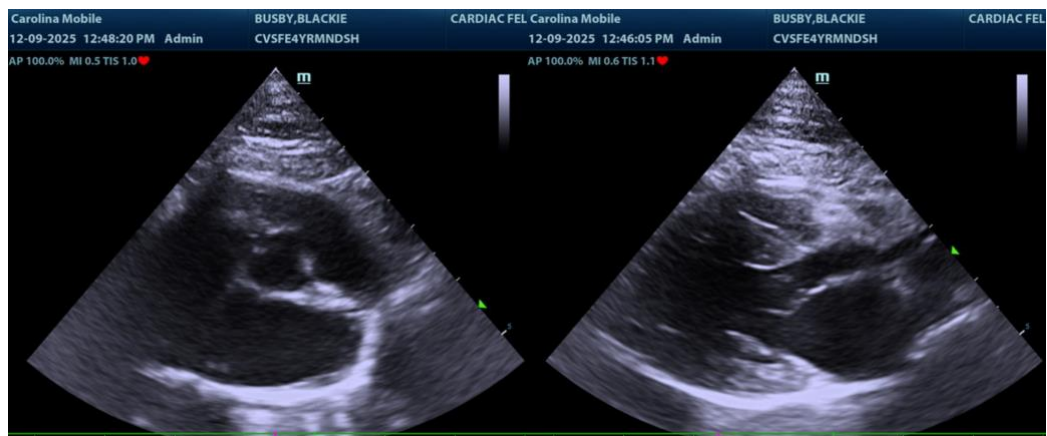
12/9/25

to the increased left atrial size. If not already performed, it is recommended to ensure that patient's blood pressure is normal, and the patient is euthyroid. 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.

An electrocardiogram is recommended due to the patient's bradycardia and arrhythmia noted during the echocardiogram. Sedation is not recommended for this patient, until an ECG is obtained. Any sedation, including gabapentin and/or butorphanol, increase the patient's risk for sudden cardiac death.

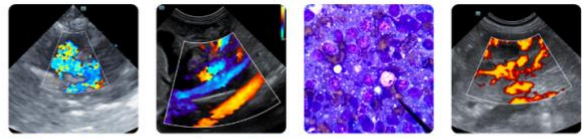
Given the patient's age, recommend obtaining additional history, including any evidence of flea or tick-borne diseases. Can consider infectious disease panel, submitted to NC State (the comprehensive panel is ideally recommended vs only testing for bartonella). Can also consider testing for toxoplasmosis to rule out infectious causes, causing the patient's arrhythmia and changes to the heart. In some cases, if there is an underlying infectious cause, therapy for the underlying infection can cause resolution of the changes to the heart, however, infectious cases are less common, and unfortunately, primary HCM is a more common diagnosis. With that being said, if the patient has a history of being indoor/outdoor, any flea or ticks identified in the patient at any point in their lifespan, or has an unknown previous medical history, strongly encourage infectious disease testing.

The ECG can be submitted separately for this patient. Unfortunately, with the rhythm and the cardiac disease, at this point in time, the patient is at risk of 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 can be of any further assistance please contact me.



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