



**PATIENT PRESENTING CLINICAL SIGNS**

Murray Brown

History: Intermittent hiccups and coughing. Episodes of disorientation, twitching in back, unable to move. Lasts 1-2 min. Decreased strength and mobility in rear legs, misses jumps. Gabapentin PO last night and this am; added Torbugesic 0.4mg/kg IM.

**SPECIES**

Abnormal PE/Chem/CBC/UA Results: PE: BCS 4/9, pigmented spot on dorsal iris. Grade 3/6 systolic heart murmur. BW: proBNP 1,500, Glucose 99, Alb 2.4 L, A:G ratio 0.5. T-4 2.4 (normal). RADS (attached, taken after echo finished)

Feline

**BREED**

Domestic Shorthair

**SEX**

Neutered male

**AGE**

5 years

**WEIGHT**

10.8 lbs

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. Minor **left ventricular** hypertrophy was noted in this patient. This is consistent with a minor form of hypertrophic cardiomyopathy. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions and angles of the myocardium. The **left ventricular outflow** tract demonstrated subjective structural integrity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinetics. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure and diameter (approx. 1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted or extra cardiac pathology in the visible planes. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Ebersole

**HOSPITAL NAME**

Scanvet

**REFERRING VET**

Dr. Giroux

**INVOICE**

96544

**DATE**

3/2/22

FELINE CARDIAC PARAMETERS	BODY WEIGHT	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	10.8 lbs	NM	0.61	1.81	0.68	57	90
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)	LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)	
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
PATIENT		1.35	1.57 max			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



**PATIENT**

Murray Brown

**ULTRASONOGRAPHIC FINDINGS**

Minor left ventricular hypertrophy.

**SPECIES**

Feline

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

I do not believe that the clinical signs have a relationship to the cardiac presentation. Systemic disease may be playing a role in the BNP elevation; however, structurally and functionally the heart is unremarkable other than minor, idiopathic left ventricular hypertrophy. Recheck echocardiogram is recommended in 6 months.

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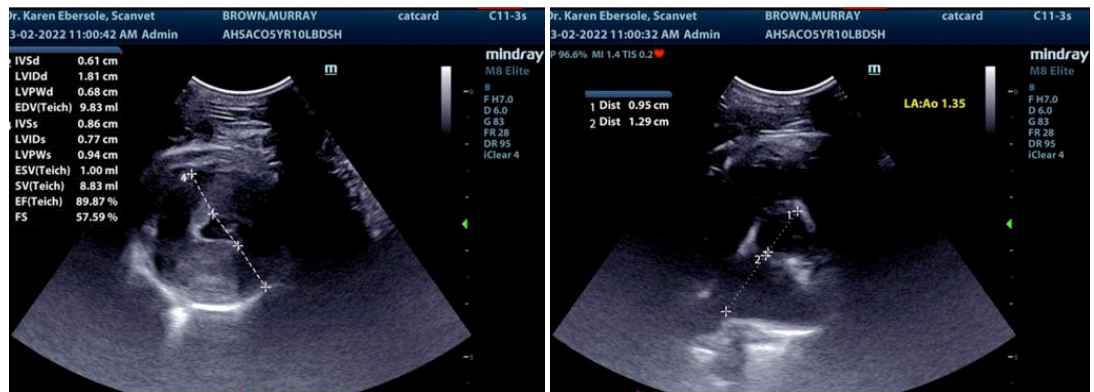
Neutered male

**AGE**

5 years

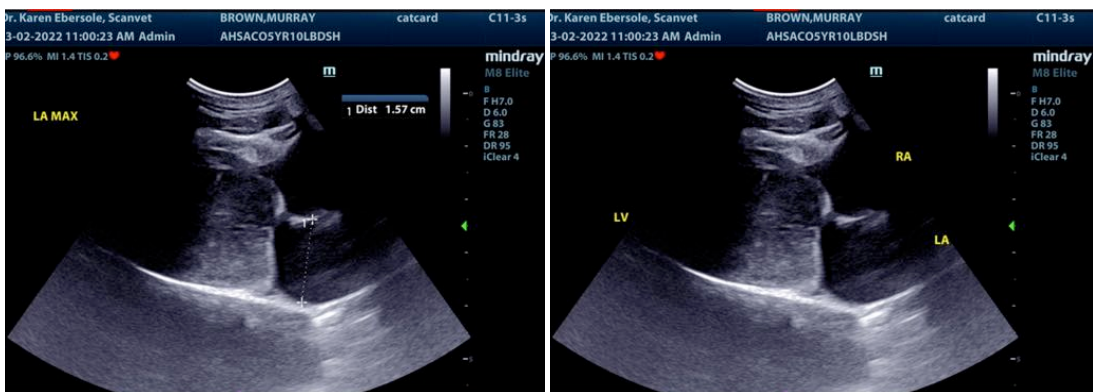
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**INVOICE**

96544

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.

**DATE**

3/2/22

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
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