



**PATIENT PRESENTING CLINICAL SIGNS**

Howard Gilpin

History: Howard presented for cardiac diagnostic work-up on March 1, 2022 after having been treated for bronchitis in early November, then again this past week, during which episode he also had upper respiratory signs. Both times he was treated with azithromycin and improved. During the most recent exam in late February, he was found to have a cardiac murmur, a novel finding. When examined yesterday, a 2/6 intensity murmur was ausculted, and he had no abnormal respiratory signs. He was very calm and required no sedation for the cardiac ultrasound exam. Howard's systolic BP was normal at 100mmHg, as measured with doppler.

**SPECIES**

Feline

**BREED**

Domestic Shorthair

**SEX**

Neutered male

**AGE**

7 years

**WEIGHT**

11.8 lbs

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

Abnormal PE/Chem/CBC/UA Results: CBC, chemistry, T4 and SDMA were all normal.

**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. The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. 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 normal laminar flow and 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, laminar flow, 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. Periodic arrhythmia was noted.

**IMAGING PERFORMED BY**

Dr. McFeely

**HOSPITAL NAME**

Straley Veterinary Associates

**REFERRING VET**

Dr. McFeely

**INVOICE**

96530

**DATE**

3/2/22

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		NM	0.5	1.4	0.5	50	
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			1.5		0.6	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**

Howard Gilpin

**ULTRASONOGRAPHIC FINDINGS**

Structurally and functionally normal heart with arrhythmogenic activity.

Likely flow murmur, exact source cannot be detected.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

EKG is indicated. There was no evidence of disease that would necessitate cardiac therapy other than possible anti-arrhythmic.

**BREED**

Domestic Shorthair

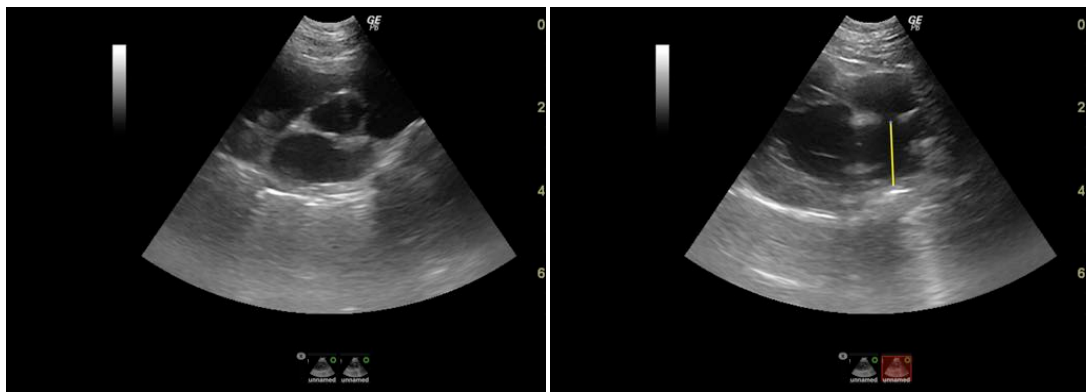
Benign flow murmurs are common in cats. This may be owing to volume shifts, tachycardia, benign (DRVOTO) right ventricular outflow changes, trivial turbulence in any of the valvular apparatuses, or possibly excessive stethoscope pressure against the chest according to a recent study These are physiologically benign and unrelated to specific pathology.

**SEX**

Neutered male

**AGE**

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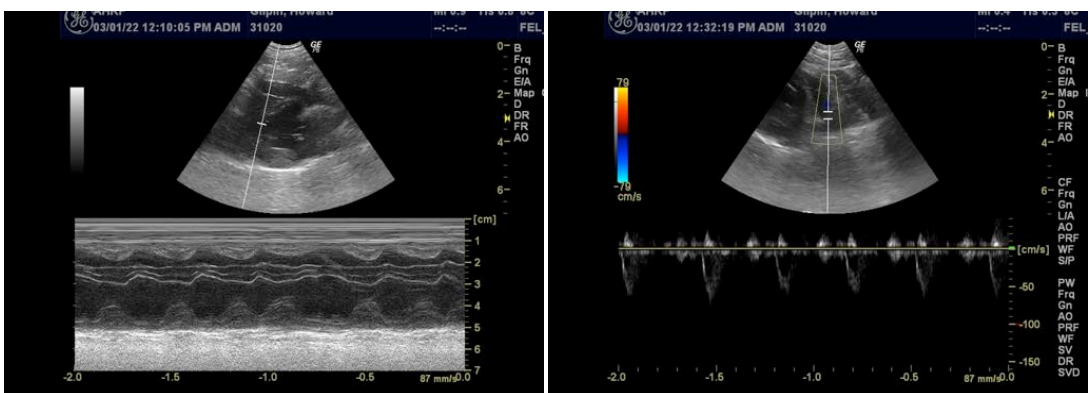


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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**DATE**

3/2/22

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.



**PATIENT**

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

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