



## PATIENT

Olaf Daniels

## PRESENTING CLINICAL SIGNS

History: presented for assessment grade 3 left side pansystolic murmur  
 Abnormal PE/Chem/CBC/UA Results: CBC/chem/T4 within normal limits

## SPECIES

Feline

## BREED

Domestic Shorthair

## SEX

Neutered male

## AGE

9 years

## WEIGHT

7.8 lbs

## INTERPRETED BY

Eric Lindquist, DMV  
 DABVP, Cert. IVUSS

## IMAGING PERFORMED BY

Dr. Eamon

## HOSPITAL NAME

Advanced Veterinary  
 Imaging

## REFERRING VET

Dr. Eamon

## INVOICE

76270

## DATE

7/27/23

## 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.

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	7.8 lbs	180	0.56	1.6	0.58	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	1.3		1.2	NM	NM	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							

## ULTRASONOGRAPHIC FINDINGS

Structurally unremarkable heart.



### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

#### PATIENT

Olaf Daniels

The source of the murmur is unclear. This is likely an idiopathic flow murmur. No treatment is recommended.

#### SPECIES

Feline

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.

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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.

#### HOSPITAL NAME

Advanced Veterinary  
Imaging

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.

#### REFERRING VET

Dr. Eamon

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

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