



PATIENT PRESENTING CLINICAL SIGNS

Bill Clees History: Bill has a history of a heart murmur, so owner requested echo to evaluate He has no ongoing health issues though he does vomit frequently per owner

SPECIES

Feline

Abnormal PE/Chem/CBC/UA Results: -bloodwork normal other than slight elevation globulin, slight elev amylase; UA shows isosthenuria USG 1.022, no protein, quiet sed -2/6 murmur right apical -obese; Otherwise NSF on PE -Ultrasound of abdomen pretty unremarkable other than geriatric appearing kidneys

BREED

DSH

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

SEX

Neutered Male

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	0.49	1.28	0.49	33	66
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	1.22	1.32	1.26	.80	.53	NM	

AGE

8 Years

WEIGHT

7 kg

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

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

IMAGING PERFORMED BY

Dr. Callihan

HOSPITAL NAME

Pacific Crest Mobile

REFERRING VET

Dr. Callihan

INVOICE

14992

DATE

5/1/22

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. The **left ventricle** presented 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 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. Mild centralized **tricuspid** insufficiency noted at 1.47 m/s, not clinically significant. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). Minimal microconsolidations noted/comet tails in the peripheral lung field. These are likely incidental findings, especially if the patient has a history of bronchial disease.

ULTRASONOGRAPHIC FINDINGS



PATIENT

Bill Clees

- Benign flow murmur
- Slight tricuspid insufficiency, not clinically significant
- Minimal microconsolidations/comet tails in the peripheral lung fields
- Normal heart otherwise

SPECIES

Feline

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Essentially flow murmur. No evidence of primary cardiac disease present. Given the patient history, abdominal sonogram recommended to ensure primary disease is not an issue.

BREED

DSH

Flow murmurs can be caused by volume shifts, anemia, excitable/tachycardic state, DRVOTO (Dynamic Right Ventricular Outflow Obstruction), or even simple stethoscope pressure upon clinical exam.

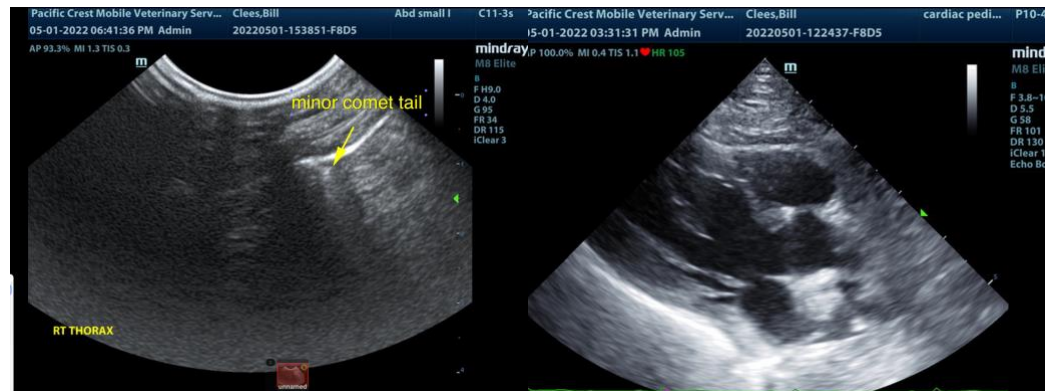
SEX

Neutered Male

These flow murmurs are typically benign and may develop often later in life theoretically owing to age related clinically insignificant changes of the heart. If the patient is recently clinical for anorexia, weight loss or metabolic disturbances, an abdominal sonogram and full workup may be appropriate to assess underlying clinical systemic causes of a newly developed flow murmur.

AGE

8 Years



WEIGHT

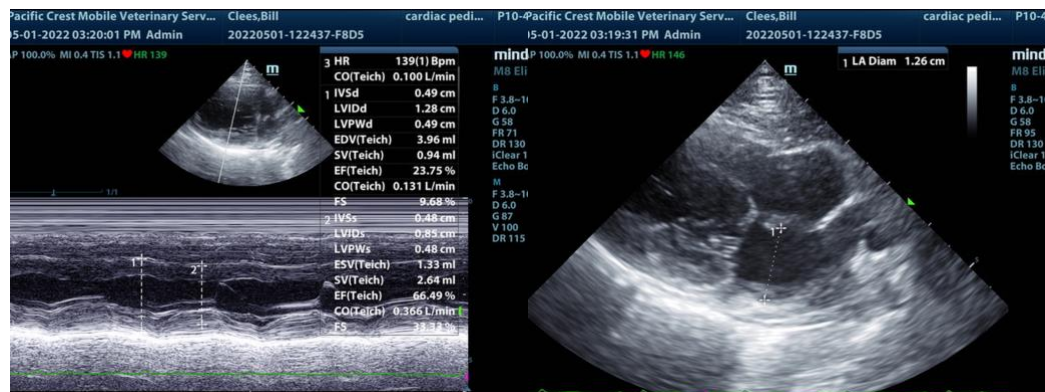
7 kg

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Callihan



HOSPITAL NAME

Pacific Crest Mobile

REFERRING VET

Dr. Callihan

INVOICE

14992

DATE

5/1/22



PATIENT

Bill Clees

SPECIES

Feline

BREED

DSH

SEX

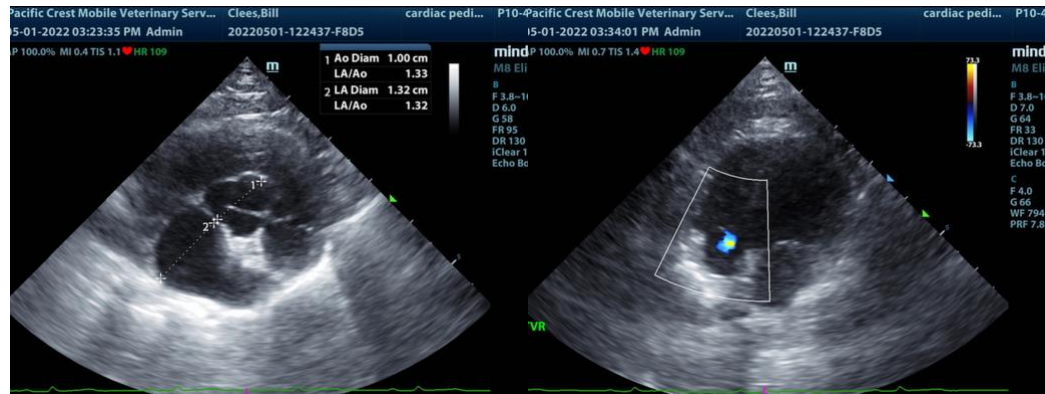
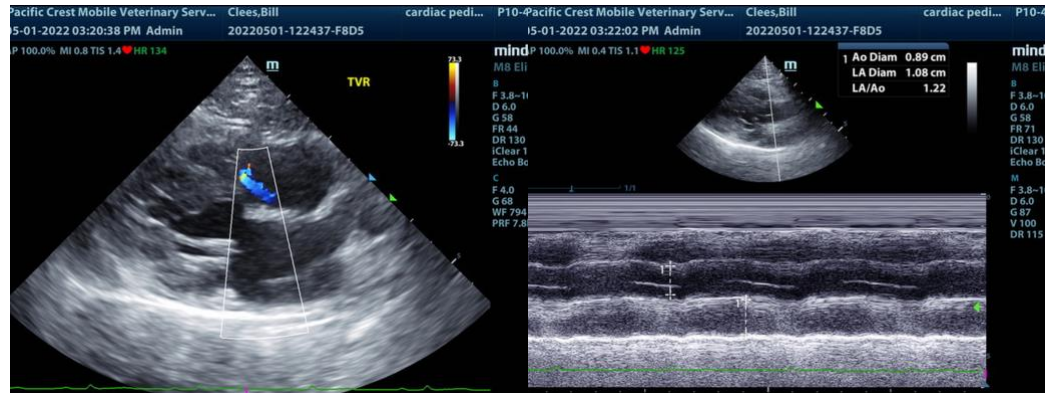
Neutered Male

AGE

8 Years

WEIGHT

7 kg



INTERPRETED BY

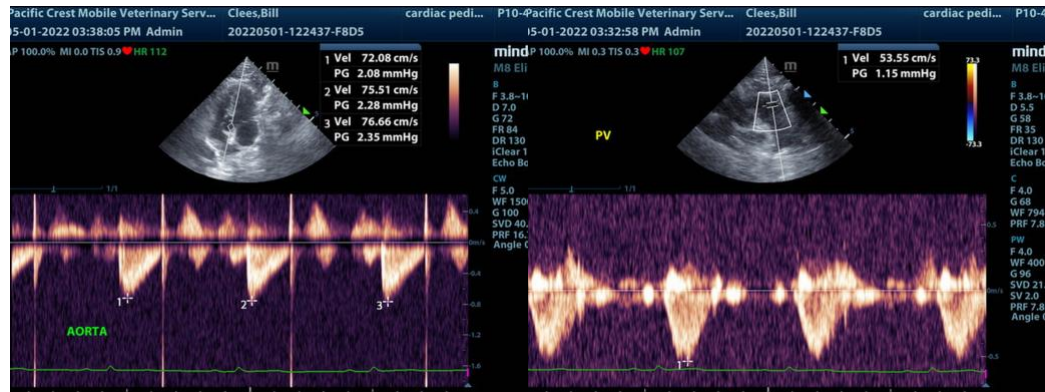
Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Callihan

HOSPITAL NAME

Pacific Crest Mobile



REFERRING VET

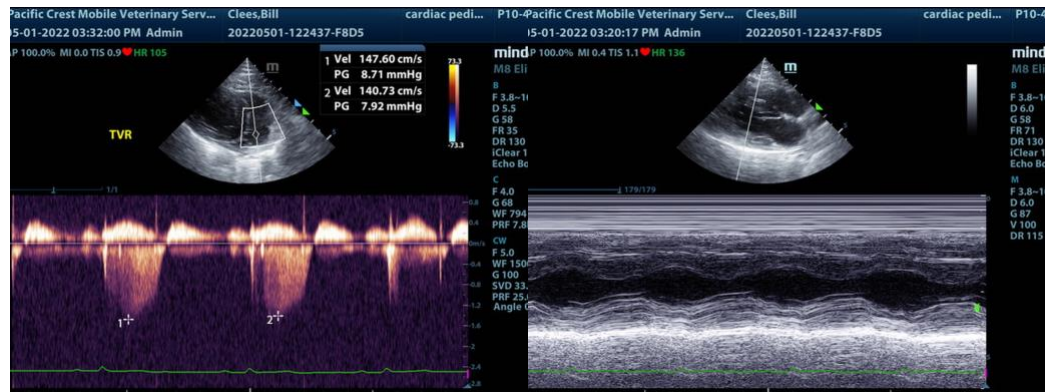
Dr. Callihan

INVOICE

14992

DATE

5/1/22





PATIENT

Bill Clees

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

SPECIES

Feline

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.

BREED

DSH

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

SEX

Neutered Male

AGE

8 Years

WEIGHT

7 kg

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

**IMAGING
PERFORMED BY**

Dr. Callihan

HOSPITAL NAME

Pacific Crest Mobile

REFERRING VET

Dr. Callihan

INVOICE

14992

DATE

5/1/22