



PATIENT

Kulfi Alvarez

SPECIES

Feline

BREED

DLH

SEX

FS

AGE

2.5 years

WEIGHT

13 lbs.

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Budd Lake AH

REFERRING VET

Dr. Verhalen

INVOICE

15449

DATE

11/10/22

PRESENTING CLINICAL SIGNS

3/6 parasternal murmur- no clinical signs at home. Preventative cardiac workup.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

| 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 | | 211 | 0.42 | 1.5 | 0.43 | 52.6 | 85 |
| 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 | 1.4 | 1.1 | 1.0 | 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 | | | | | | | |

Cardiac Presentation

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. No overt MR was present on Doppler. 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. Normal measured LVOT velocity was noted. 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. No overt TR was present on Doppler. 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). Normal measured RVOT velocity was noted. 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.

ULTRASONOGRAPHIC FINDINGS

- Overtly normal cardiac structure and function



PATIENT

Kulfi Alvarez

SPECIES

Feline

BREED

DLH

SEX

FS

AGE

2.5 years

WEIGHT

13 lbs.

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Budd Lake AH

REFERRING VET

Dr. Verhalen

INVOICE

15449

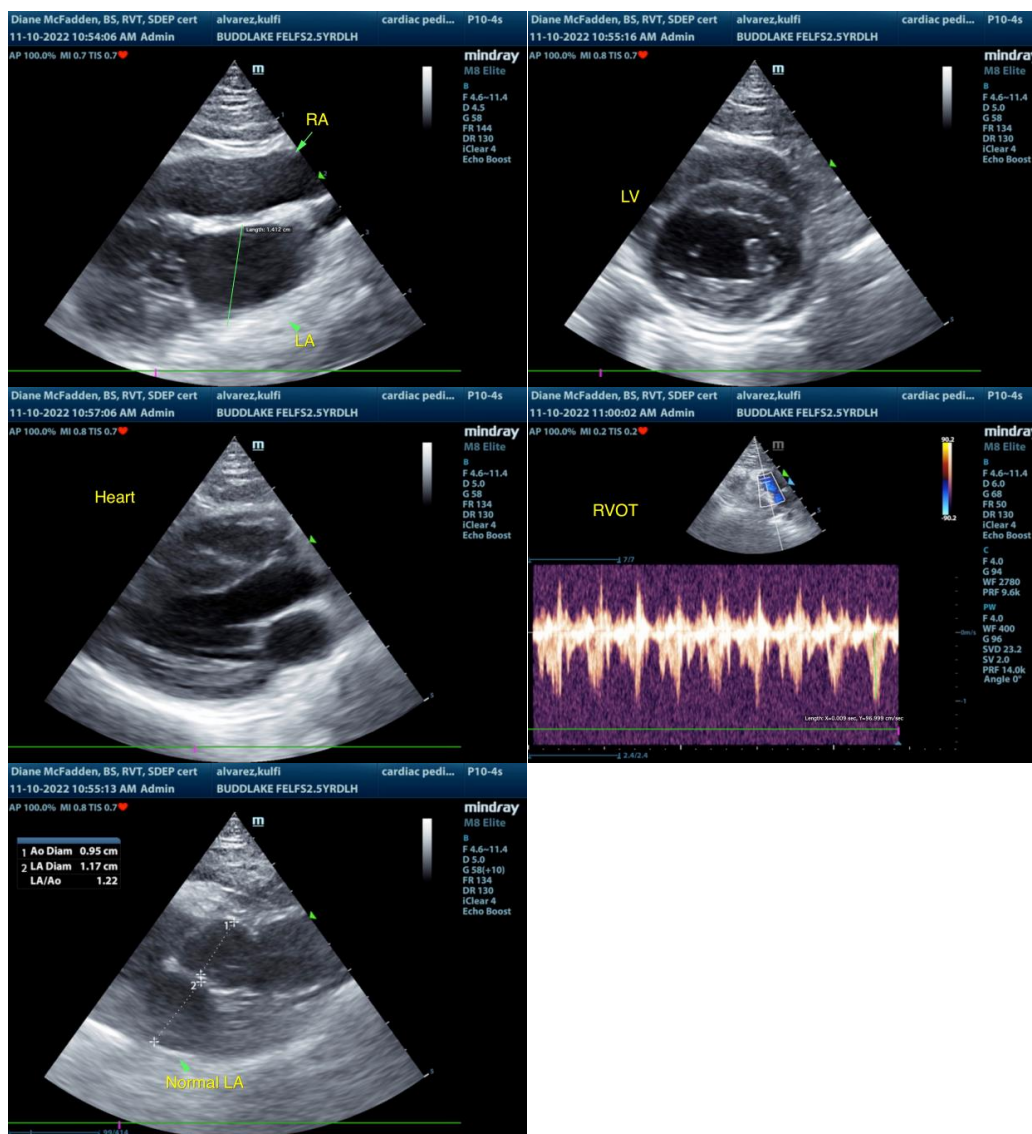
DATE

11/10/22

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of structural or functional cardiomyopathy, including no evidence of left or right heart chamber enlargement, HCM criteria, significant valvular insufficiencies, definitive shunt, evidence of stenotic disease, or clinical pulmonary hypertension.

Assuming no evidence of volume changes i.e., dehydration or anemia, a benign physiologic / flow murmur is considered likely, although potential for non-visualized small flow abnormality or potential shunt which may be difficult to visualize sonographically cannot be definitively excluded. Regardless, the hemodynamic effects of the murmur appear to be minimal without evidence of left or right heart chamber enlargement. No indication for cardiac medications. No anesthetic contraindications if anesthesia is required. Conservative monitoring of the murmur would be appropriate with recheck echocardiogram suggested in 6-12 months sooner if clinical signs arise or if murmur intensity increases.





PATIENT

Kulfi Alvarez

SPECIES

Feline

BREED

DLH

SEX

FS

AGE

2.5 years

WEIGHT

13 lbs.

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

**IMAGING
PERFORMED BY**

Diane McFadden

HOSPITAL NAME

Budd Lake AH

REFERRING VET

Dr. Verhalen

INVOICE

15449

DATE

11/10/22

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com