



PATIENT

Gracie Engebretson

SPECIES

Canine

BREED

Terrier Mix

SEX

Spayed Female

AGE

13 Years

WEIGHT

21

PRESENTING CLINICAL SIGNS

History: Newly diagnosed grade 4/6 L-sided murmur. She is not having any problems at home.
Abnormal PE/Chem/CBC/UA Results: Done 12/22 CBC/Chem/UA/T4: all WNL/NSF; USG = 1.045

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT	--	--	1.3	1.3	46.6	80	0.2
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	LVIDd Avg; 2D and m-mode short axis (cm)	LVIDs Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	NM	NM	NM	--	3.2	3.9	--

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Mavis McCormick-Rantze

HOSPITAL NAME

Lanier AH

REFERRING VET

Dr. Hannah Fearing

INVOICE

20936

DATE

2/2/23

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented mild thickening suggestive of mild endocardiosis. No evidence of mitral valve prolapse. 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 or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology. 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. No echographically detectable evidence of infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window. No arrhythmia noted.

ULTRASONOGRAPHIC FINDINGS

- Overtly normal cardiac structure and function
- Mildly thickened mitral valve- consistent with mild endocardiosis



PATIENT

- Normal left atrium

Gracie Engebretson

SPECIES

Canine

BREED

Terrier Mix

SEX

Spayed Female

AGE

13 Years

WEIGHT

21

INTERPRETED BY

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

**IMAGING
PERFORMED BY**

Dr. Mavis McCormick-
Rantze

HOSPITAL NAME

Lanier AH

REFERRING VET

Dr. Hannah Fearing

INVOICE

20936

DATE

2/2/23

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cardiac murmur, based on the description and cardiac presentation, is most likely consistent with chronic degenerative valvular changes with secondary mitral valve insufficiency. The lack of left atrium enlargement or generalized cardiomegaly, indicate that the hemodynamic effects of the murmur at this stage are low. No evidence of clinical pulmonary hypertension or LV systolic dysfunction. In a nonclinical patient, without evidence of significant chamber enlargement, cardiac medications are not overtly indicated. However, prognosis may be considered highly variable and sonographic monitoring is recommended. Recheck echocardiogram is suggested in 6 months or sooner if clinical signs arise. No overt anesthetic contraindication if anesthesia is required.

Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.

<https://www.antechdiagnostics.com/cadet-braf>



PATIENT

Gracie Engebretson

SPECIES

Canine

BREED

Terrier Mix

SEX

Spayed Female

AGE

13 Years

WEIGHT

21

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Mavis McCormick-Rantze

HOSPITAL NAME

Lanier AH

REFERRING VET

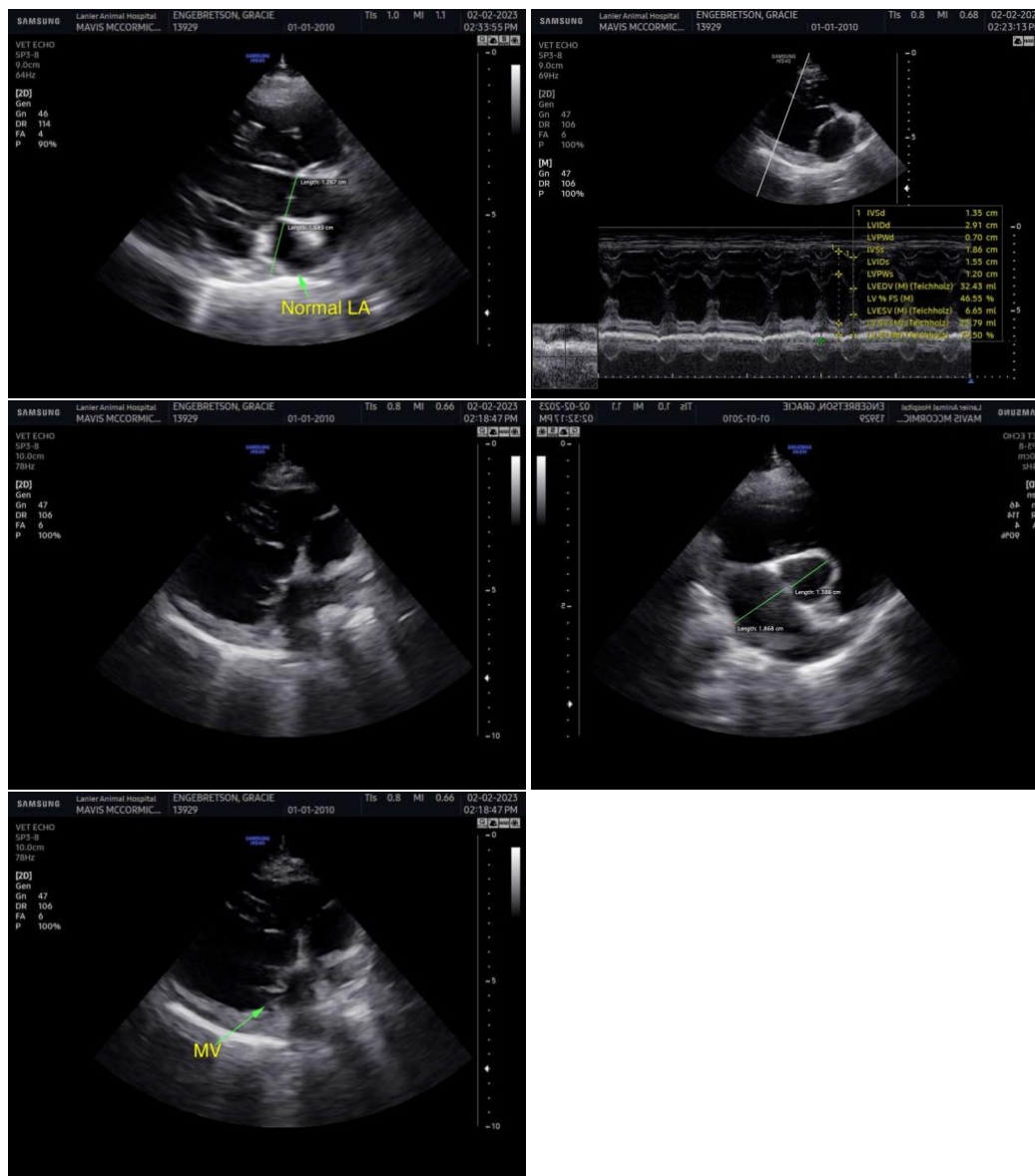
Dr. Hannah Fearing

INVOICE

20936

DATE

2/2/23



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.

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