



PATIENT PRESENTING CLINICAL SIGNS

Earl Remer Diagnosed with CHF via rads at another clinic and is on lasix and enacard. Persistent cough. Has noted heart murmur

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART

Canine

BREED

Weimaraner

SEX

Neutered Male

AGE

13 Years

WEIGHT

87

| 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 | <1.6 | 28-40 | 40-100 | <0.6 |
| PATIENT | 5.0 | <1.0 | NM | 1.37 | 33 | 65.1 | 0.29 |
| 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 | 110 | 1.0 | 0.82 | | 4.1 | 3.7 | |

Cardiac Presentation

INTERPRETED BY

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

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging

REFERRING VET

Dr. Miller

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. Color doppler assessment of the mitral valve revealed mild, primarily eccentric insufficiency. 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. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. 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). Color doppler assessment of the pulmonic valve revealed trace pulmonic valve insufficiency. No visible **pericardial** or free pleura fluid was noted. The cranial **mediastinum** and **pericardial and extra-cardiac regions** were free of masses in the visible window.

ULTRASONOGRAPHIC FINDINGS

INVOICE

25282

DATE

9/9/21

- Overtly normal cardiac structure and function
- Mild mitral valve insufficiency



PATIENT

Earl Remer

SPECIES

Canine

BREED

Weimaraner

SEX

Neutered Male

AGE

13 Years

WEIGHT

87

INTERPRETED BY

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

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging

REFERRING VET

Dr. Miller

INVOICE

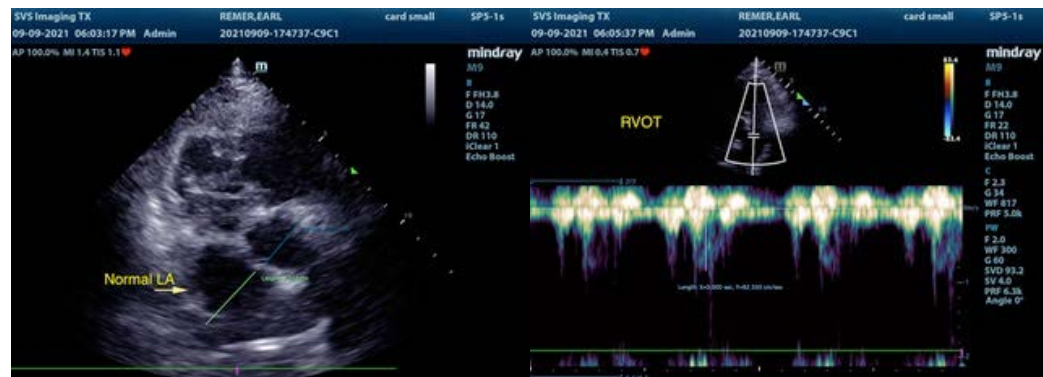
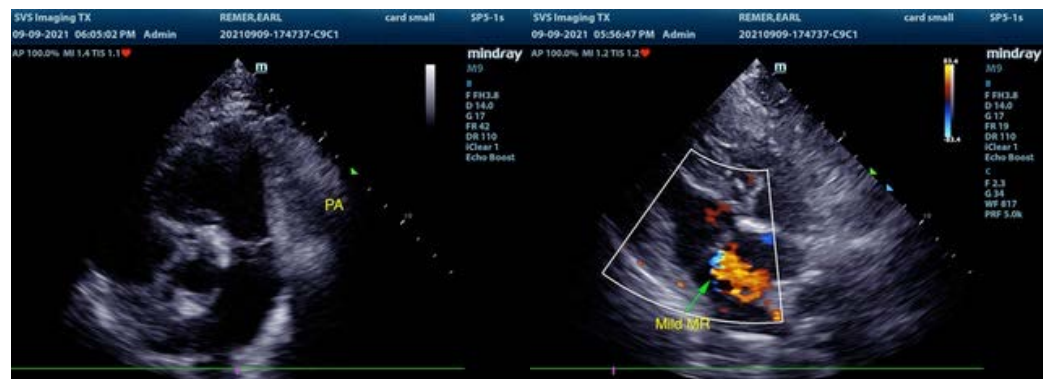
25282

DATE

9/9/21

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is likely associated with mitral valve insufficiency. The lack of left atrial enlargement or evidence of overall left heart increased volume indicate that the risk of future complication is low. No other clinical issues such as systolic dysfunction, additional valvular insufficiencies, or stenotic disease, or clinical pulmonary hypertension were noted. Given the overtly normal cardiac structure and function, a cardiogenic cough in this patient is not suspected. Consideration for non-cardiogenic causes of cough such as primary lower airway disease are warranted. Given these findings, no clinical indication for cardiac medications warranted. Recheck echocardiogram suggested in 6 months, sooner if clinical signs suggestive of heart disease (i.e., exercise intolerance, increased resting respiration rate, pulmonary edema, etc.) are noted. Heartworm check is recommended if not recently done.





PATIENT

Earl Remer

SPECIES

Canine

BREED

Weimaraner

SEX

Neutered Male

AGE

13 Years

WEIGHT

87

INTERPRETED BY

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

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging

REFERRING VET

Dr. Miller

INVOICE

25282

DATE

9/9/21



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