



PATIENT

Trooper Scott

SPECIES

Canine

BREED

German Shepherd

SEX

Male Neutered

AGE

12 years

WEIGHT

81.6lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

A. Westcott, DVM

HOSPITAL NAME

Alastair Westcott,
DVM

REFERRING VET

Dr. Westcott

INVOICE

28482

DATE

1/20/23

PRESENTING CLINICAL SIGNS

History: Recheck echo. Arrhythmia on exam. Grade 3/6 heart murmur.

-Radiographs: Borderline cardiomegaly with LAE.

-ECG: Atrial fibrillation with ventricular arrhythmias.

-Current medications: Pimobendan 10mg every 12 hours, furosemide 40mg every 12 hours, diltiazem 45mg 1 tablet daily 8 hours, digoxin 0.125mg 1 tablet every 12 hours, spironolactone 100mg 1 tablet every 12 hours.

-Pertinent previous echo findings (10/2022 MML): Severe LAE: 5.3/4.3, FS: 19%, moderate MR, mild TR, moderate RAE, mild PAH, trace AI. TR: 3.0, LA: 5.2. Suspect DCM with AF.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild left ventricular dilation with decreased systolic function. Decreased LV wall thickness with increased sphericity. Moderate to severe left atrial enlargement. The mitral valve appears normal in form and function, with no obvious prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation secondary to annular stretch. Normal velocity. Trace tricuspid regurgitation. Mild right heart enlargement. The aortic valve is normal in morphology and mobility. No subvalvular ridge present; normal LVOT velocity. Trace aortic insufficiency. Normal pulmonic valve with trace pulmonic insufficiency seen. No pericardial or pleural effusion noted. No obvious cardiac tumors. Irregular rate and rhythm throughout.

CARDIAC CHART

| 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 | 4.9 | 2.1 | NM | 2.2 | 23 | 40 | 0.6 |
| 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 | BELOW | BELOW | BELOW | BELOW |
| PATIENT | NM | 0.85 | 0.7 | 37.0 | 4.1 | 4.6 | 3.5 |
| *Normal chamber parameters expressed as a mean value (SD) | | | | 3 | 1.27 (5.3) | 2.46 (2.46) | 1.36 (5.5) |
| BODY WEIGHT DEPENDENT PARAMETERS | | | | 5 | 1.40 (4.5) | 2.74 (5.2) | 1.60 (4.7) |
| *Note: All measurements based upon multi-modal images and methods. An average value is reported. | | | | 10 | 1.50 (3.8) | 3.27 (3.5) | 2.06 (3.1) |
| | | | | 15 | 1.83 (2.0) | 3.71 (2.4) | 2.43 (2.1) |
| | | | | 20 | 2.02 (1.9) | 4.14 (2.2) | 2.80 (2.0) |
| | | | | 25 | 2.18 (2.4) | 4.48 (2.9) | 3.10 (2.5) |
| | | | | 30 | 2.33 (3.3) | 4.83 (3.9) | 3.39 (3.4) |
| | | | | 35 | 2.48 (4.3) | 5.17 (5.0) | 3.69 (4.5) |
| | | | | 40 | 2.62 (5.2) | 5.48 (6.1) | 3.96 (5.4) |
| | | | | 50 | 2.88 (7.1) | 6.07 (8.3) | 4.46 (7.4) |

Adapted from June Boon, Veterinary Echocardiography, 1998
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435
Hansson et al, Vet Rad and Ultrasound 2002
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Compared to the prior study, there is evidence of mild improvement. Both the left and right heart are decreased in size with a slight improvement in systolic function. MR and TR are also slight improved without evidence of persistent pulmonary hypertension. Finally, a small aortic leak persists and routine blood pressure monitoring is advised. The arrhythmia is noted throughout the study; however, no further comment can be made without an ECG tracing. That being said, the heart rate does appear adequately controlled.

Even with stability seen here, prognosis remains guarded to poor long-term, with an average survival time of <6 months.

Elective anesthesia is not advised due to high risk for complications.

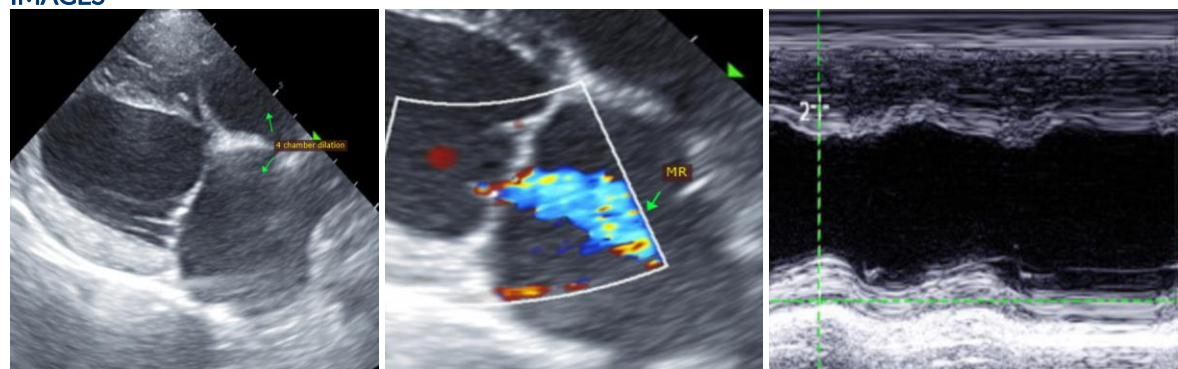
Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Monitor for development of a cough, worsening labored breathing, abdominal distention, exercise intolerance or collapse episodes in the future. Monitoring of sleeping breathing rates at home is recommended to assess response to medications and recurrence of CHF in the future.

PLAN:

Continue Pimobendan, Furosemide, Diltiazem, Digoxin and Spironolactone as previously prescribed. Routine ECG monitoring to ensure adequate control is recommended. Monitor BP every 6 months.

A recheck echocardiogram is recommended in 6 months to screen for progression, sooner if clinical issues arise in the interim.

IMAGES



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. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com