



PATIENT

Carter Wineland

SPECIES

Canine

BREED

Pomeranian

SEX

Neutered Male

AGE

14 Years

WEIGHT

8.8 Pounds

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Danielle Kitz

HOSPITAL NAME

Woodlands AH

REFERRING VET

Dr. Danielle Kitz

INVOICE

47111

DATE

5/3/23

PRESENTING CLINICAL SIGNS

Patient has had a Grade III-IV left parasternal murmur for over a year. He also has had a non-productive cough for 1-2 years that seems to be getting progressively worse, and doesn't respond well to typical cough suppressants. He is not on any cardiac medications currently.

Abnormal PE/Chem/CBC/UA Results: Blood pressure -130 with Doppler on the day of the echo
Labwork normal.

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 | <1.6 | 28-40 | 40-100 | <0.6 |
| PATIENT | 5.47 | 2.88 | 1.85 | 2.01 | 48 | 81 | 0.1 |
| 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 | | 1.51 | 0.76 | | 3.5 | 2.87 | |

Cardiac Presentation

The echocardiogram for this patient presented excessive **left atrial size** expressed both in the LA/AO and LA max measurements Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. Prolapse of the anterior mitral valve leaflet also noted. 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** insufficiency noted. 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. Hepatic veins were not dilated.

ULTRASONOGRAPHIC FINDINGS

- Advanced Stage B2+ valvular diseases
- Mitral and tricuspid insufficiency



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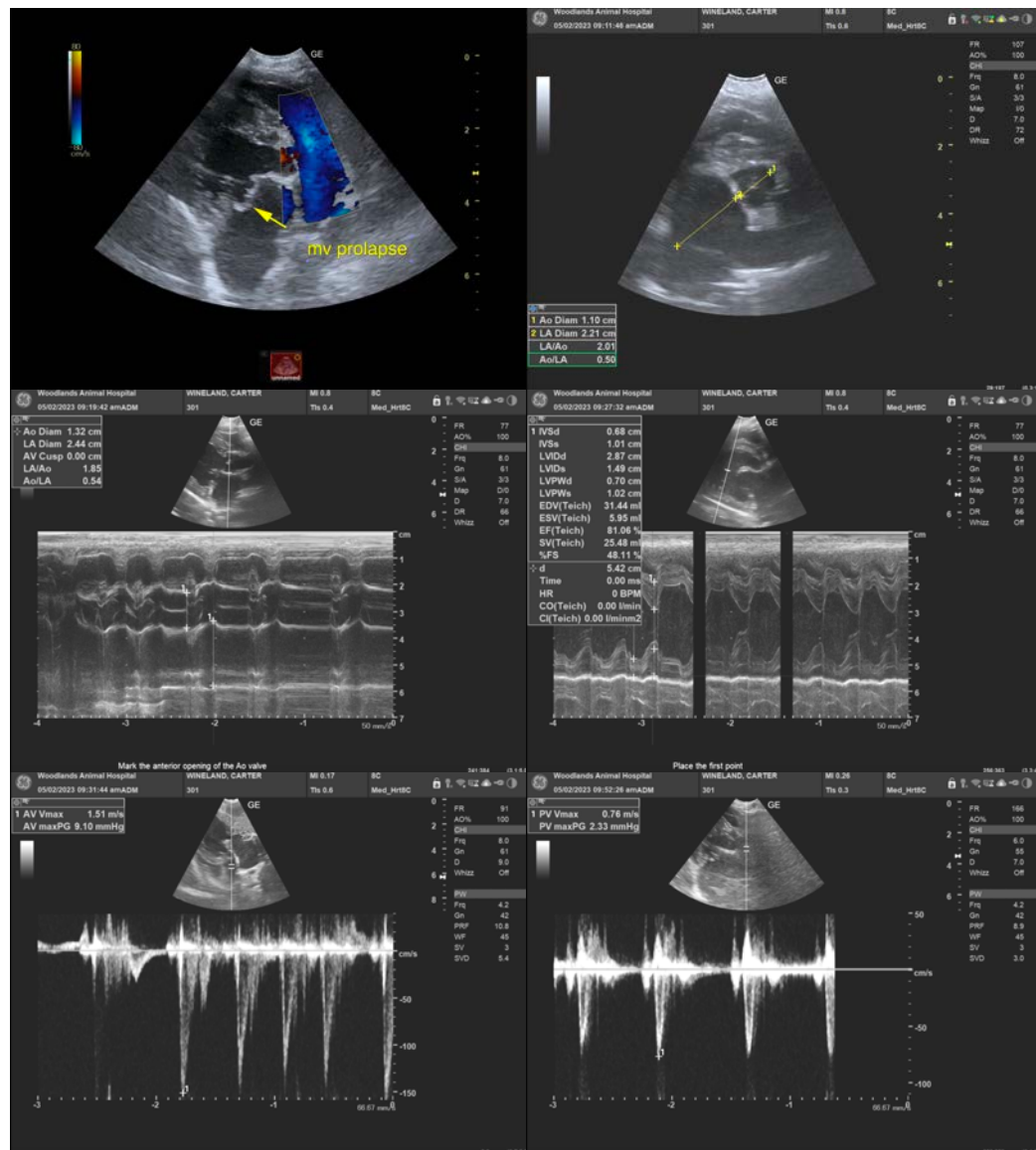
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Concurrent bronchial component may be present. However, a clinical trial of Pimobendan at 0.3 mg/kg BID, Lasix 1-2 mg/kg BID, and ACE inhibitor 0.5 mg/kg SID progressing to BID could be considered, and reassessment of the clinical status. Recheck echo in 1-3 months. Blood pressures, BUN, creatinine, basal respiratory rate should all be monitored. Basal respiratory rate target of <25/min.

Radiograph: Left atrial enlargement with main stem bronchus impingement.





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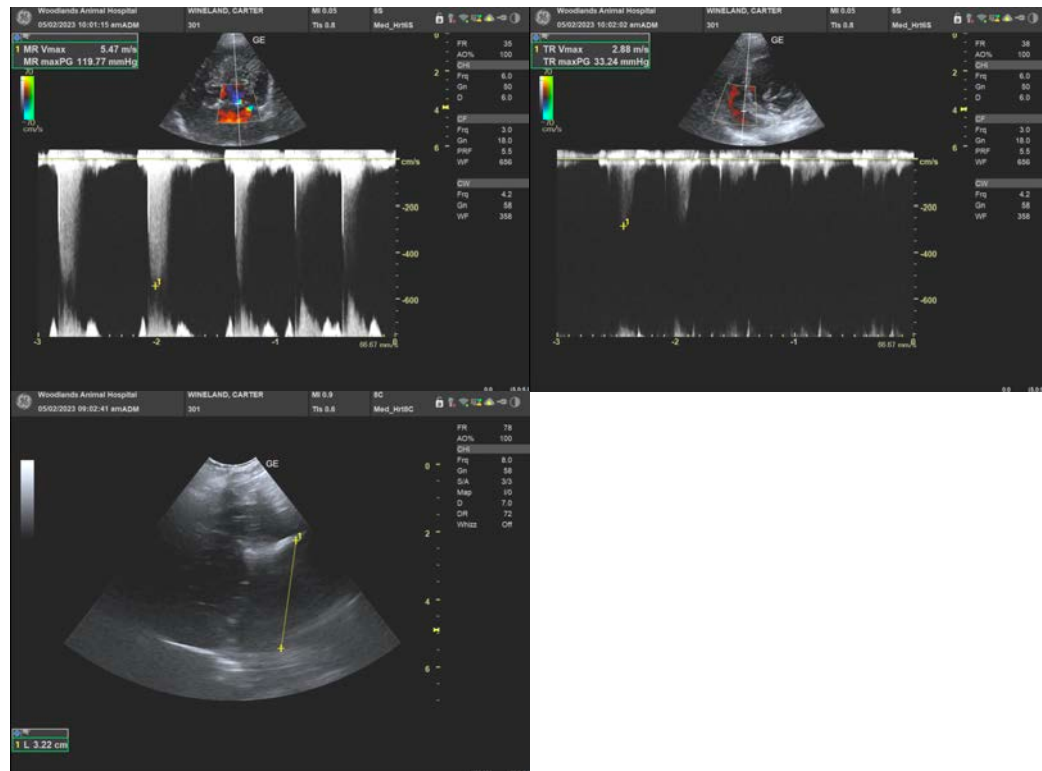
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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