



PATIENT

Noble Sandberg

SPECIES

Canine

BREED

Golden Retriever

SEX

Male Neutered

AGE

10.11.12

WEIGHT

70.5lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Loetitia Saint-Jacques,
LVT

HOSPITAL NAME

Incline VH

REFERRING VET

Dr. Kateryna

INVOICE

47442

DATE

4/6/26

PRESENTING CLINICAL SIGNS

History: Assess prior to dental. Doing well. BP: 119/79 (95), 124/75 (91), 126/76 (93), 120/72 (86).
Abnormal PE/Chem/CBC/UA Results: ANION GAP 9 11 - 26 mmol/L LOW CHOLESTEROL 436 131 - 345 mg/dL HIGH

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental information only.
Normal cardiac silhouette. No obvious evidence of CHF.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at 25mm/s; 10mm/mV. The average heart rate is 90bpm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P wave morphology is positive with a normal dimension. Normal PR. The QRS morphology is positive with normal dimension. MEA is normal. No ectopic beats, pauses or dysrhythmias observed.
ECG diagnosis: Normal sinus rhythm with respiratory variation.

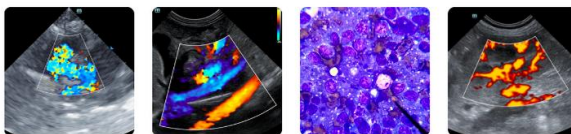
ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild MV thickening with no prolapse into the left atrial lumen. Trace mitral regurgitation with a normal left atrial dimension. Normal MR velocity. Normal LV diameter with adequate myocardial function. The tricuspid valve appears normal with trace tricuspid regurgitation. Normal velocity. Normal right atrial and ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. Trace aortic and pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

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 | 5.2 | 2.3 | NM | 1.3 | 28 | 50 | NM |
| 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 | | 1.1 | 0.6 | 32.0 | 3.0 | 3.9 | 2.8 |
| *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) |

Adapted from June Boon, Veterinary Echocardiography, 1998
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435



PATIENT

| | | | | |
|---------------------------------------------------------------------|----|------------|------------|------------|
| Hansson et al, Vet Rad and Ultrasound 2002 | 40 | 2.62 (5.2) | 5.48 (6.1) | 3.96 (5.4) |
| Bonagura et al. Echocardiography: principles of interpretation, Vet | 50 | 2.88 (7.1) | 6.07 (8.3) | 4.46 (7.4) |

Noble Sandberg

SPECIES

Canine

BREED

Golden Retriever

SEX

Male Neutered

AGE

10.11.12

WEIGHT

70.5lbs

INTERPRETED BY

Maggie Machen Lamy,
 DVM, DACVIM
 (Cardiology)

IMAGING PERFORMED BY

Loetitia Saint-Jacques,
 LVT

HOSPITAL NAME

Incline VH

REFERRING VET

Dr. Kateryna

INVOICE

47442

DATE

4/6/26

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overtly normal cardiac dimensions and function, with no obvious dysfunction or dilation of the left heart. Trace leaks are identified associated with all 4 valves; however, none are hemodynamically significant. Early valve disease is possible, and follow up is advised should a murmur develop in the future. No significant valvular leaks are visualized, and no evidence of pulmonary hypertension. The ECG is unremarkable with a respiratory sinus arrhythmia.

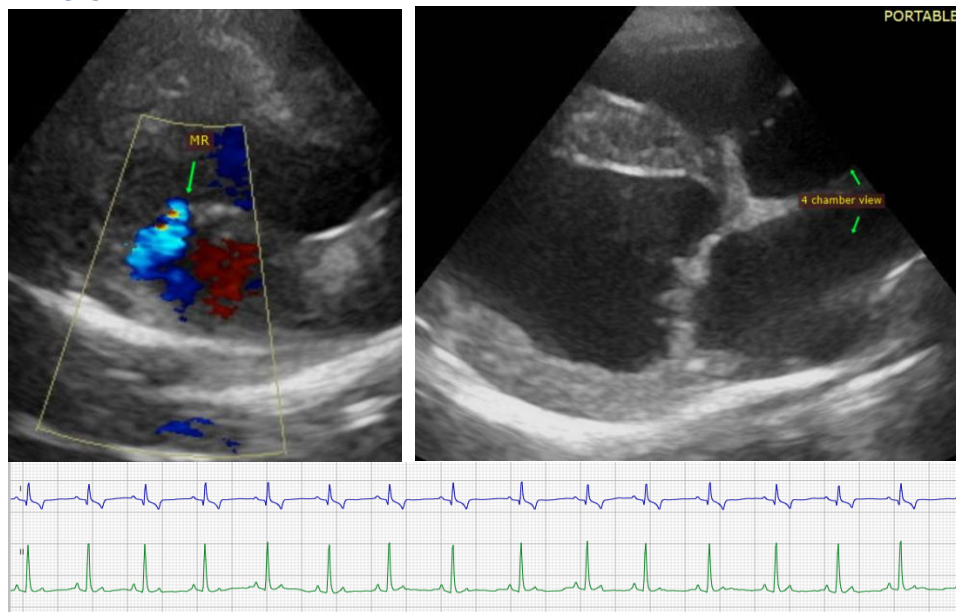
No medications are indicated and the prognosis is open from a cardiac standpoint.

Monitor for development of a heart murmur, cough, labored breathing, exercise intolerance or collapse episodes.

No cardiac contraindication for general anesthesia.

A recheck echocardiogram is recommended should a significant murmur develop or signs of cardiac compromise be noted in the future.

IMAGES



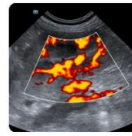
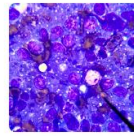
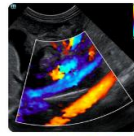
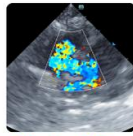
The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Imaging
performed by



Paw Print Veterinary Services, Inc.
pawsonography@gmail.com
530-786-8340



Clinical Sonography & Telectology
Educational Teleconsultation Services™

SonoPath

FOSTERING THE ART OF VETERINARY MEDICINE™

SonoPath.com info@sonopath.com 1.800.838.4268

PATIENT

Noble Sandberg

SPECIES

Canine

BREED

Golden Retriever

SEX

Male Neutered

AGE

10.11.12

WEIGHT

70.5lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

**IMAGING
PERFORMED BY**

Loetitia Saint-Jacques,
LVT

HOSPITAL NAME

Incline VH

REFERRING VET

Dr. Kateryna

INVOICE

47442

DATE

4/6/26

Maggie Machen Lamy, DVM

Diplomate of the American College of Veterinary Internal Medicine (Cardiology)

info@sonopath.com