



PATIENT

Wilma Baumer

SPECIES

Canine

BREED

Goldendoodle

SEX

Female Spayed

AGE

3.31.16

WEIGHT

77.2lbs

INTERPRETED BY

Maggie Machen Lamy,
 DVM, DACVIM
 (Cardiology)

IMAGING PERFORMED BY

Loetitia Saint-Jacques,
 LVT

HOSPITAL NAME

Incline Veterinary
 Hospital

REFERRING VET

Dr. Kateryna

INVOICE

47399

DATE

4/1/26

PRESENTING CLINICAL SIGNS

History: Acute onset of a strange, non-productive cough that started a few days ago; described as sounding like a bark. Heard a few times 3 days ago, a couple of times yesterday, and 2-3 times last night. - Energy level is mostly normal. Was very tired the day after a recent car ride from Mendo, then the cough started. Emergency OHE for pyometra approximately 4 years ago. Grade 2-3/6 systolic heart murmur auscultated.

-Abnormal PE/Chem/CBC/UA Results: RBC 5.32 5.65 - 8.87 M/ μ L LOW MONO 1.59 0.16 - 1.12 K/ μ L HIGH Blood Pressure 1: 122/92 (106) 2: 130/93 (109) 3: 139/96 (107) 4: 140/83 (93)

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental information only.

Cardiomegaly with concern for CHF.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at 25mm/s; 10mm/mV. The average heart rate is 140bpm. 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. Frequent VPCs throughout; singles only. Period of bigeminy followed by sinus tachycardia. No APCs, pauses or other dysrhythmias observed.

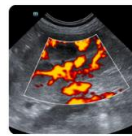
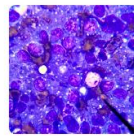
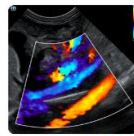
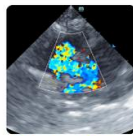
ECG diagnosis: Normal sinus rhythm with periods of sinus tachycardia and isolated VPCs.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Marked left ventricular dilation with diminished systolic function and increased sphericity. Decreased LV wall thickness. Increased EPSS. Severe left atrial enlargement. The mitral valve appears mildly thickened, with no obvious prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation. Normal velocity. Moderate right atrial and ventricular dilation. Tricuspid valve appears normal in form and function with moderate tricuspid regurgitation. Velocity consistent with early pulmonary hypertension. The aortic valve is normal in morphology and mobility. No aortic or pulmonic insufficiency. Normal RVOT and LVOT velocities. No pericardial or pleural effusion noted. No obvious cardiac tumors.

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	4.7	3.1	NM	2.0	10	18	2.5
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	180	1.2	0.6	35.0	5.0	6.9	6.3
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)



PATIENT

Wilma Baumer

SPECIES

Canine

BREED

Goldendoodle

SEX

Female Spayed

AGE

3.31.16

WEIGHT

77.2lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

**IMAGING
PERFORMED BY**

Loetitia Saint-Jacques,
LVT

HOSPITAL NAME

Incline Veterinary
Hospital

REFERRING VET

Dr. Kateryna

INVOICE

47399

DATE

4/1/26

BODY WEIGHT DEPENDENT PARAMETERS

**Note: All measurements based upon multi-modal images and methods. An average value is reported.*

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

5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
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)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

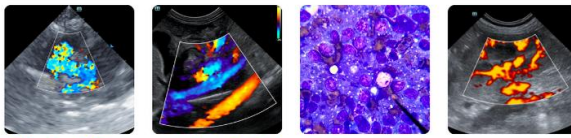
Unfortunately, this patient has end-stage cardiomyopathy and systolic dysfunction. This is causing dilation and volume overload of both the left and right heart. Moderate leaks are noted in the mitral and tricuspid valves. These may be secondary to dilation; however, component of valve disease cannot be ruled out. Early pulmonary hypertension is noted, which is not surprising given the severity of the findings. Regardless, the severity of dysfunction and pump failure is significant, and the patient is at exceedingly high risk for decompensating into congestive failure. Patient will always be at risk for right and/or left-sided CHF, development of arrhythmias/syncope and/or sudden death going forward.

Systolic failure can be primary in nature (DCM) or secondary to taurine deficiency, myocarditis, tachycardia-induced cardiomyopathy, thyroid disease, or infiltrative disease such as lymphoma. In a senior dog, primary disease is possible; however, consider testing for primary causes that may be treatable. A troponin (cTnI) level can be submitted to further investigate infiltrative/inflammatory contribution (myocarditis). Additionally, a taurine level may be helpful (screen for malabsorption issue), and a thorough diet history given the recent correlation with grain free/boutique brand/exotic ingredient diets. Finally, further systemic evaluation for underlying infiltrative contribution such as neoplasia is also reasonable (abdominal ultrasound, etc.). Regardless of cause, prognosis is poor at this stage in the disease process, with an average survival time of <6 months. The only treatable cause of systolic failure is diet/taurine deficiency, which is uncommon on commercially formulated dog foods. If the diet is of concern, highly recommend immediate diet change and taurine supplement regardless of blood taurine results. Please see the FDA website for more information.

Given the reported symptoms, CXR appearance and the severity of the findings, there is great concern for imminent CHF and immediate institution of full cardiac supportive medications is recommended as below due. If the breathing worsens or the patient appears unstable, consider hospitalization for stabilization. Cases of systolic failure are at high risk for malignant tachyarrhythmias (such as VT or rapid AF) and/or sudden death. Activity restriction is advised.

Isolated VPCs are noted on the ECG which are not surprising given the severity of disease in a patient in crisis. No treatment is warranted based upon what is seen here; however, reassessment is advised. Certainly, ventricular arrhythmias increase the risk for sudden death, and this should be expressed to the owner.

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



PATIENT

Wilma Baumer

SPECIES

Canine

BREED

Goldendoodle

SEX

Female Spayed

AGE

3.31.16

WEIGHT

77.2lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

**IMAGING
PERFORMED BY**

Loetitia Saint-Jacques,
LVT

HOSPITAL NAME

Incline Veterinary
Hospital

REFERRING VET

Dr. Kateryna

INVOICE

47399

DATE

4/1/26

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.

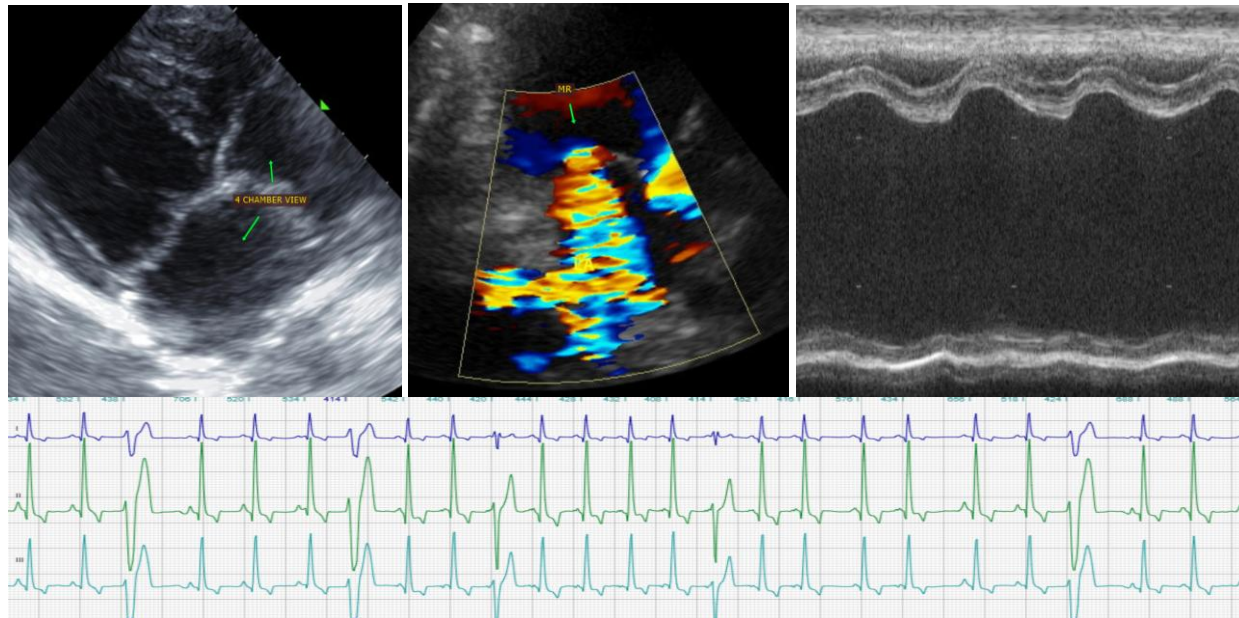
PLAN

Baseline BP recommended. Consider hospitalization if needed for injectable Lasix, oxygen support, etc. Initiate aldosterone antagonist Spironolactone 1-2mg/kg PO q12h. Institute Furosemide 1-2mg/kg PO q12h. Institute Pimobendan 0.3mg/kg PO q12h. Institute taurine 1000mg PO q12h. Diet history/change as discussed.

Monitor a renal panel, blood pressure and ECG in 1-2 weeks to ensure tolerance. If BP >130mmHg, institute ACEI 0.5mg/kg PO q12h. Consider cTnI, taurine level, AUS as discussed above. If VPCs persists, a holter monitor should be considered at this point.

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

IMAGES



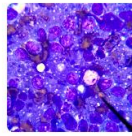
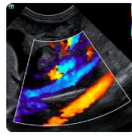
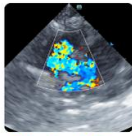
The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Imaging
performed by



PawPrints Veterinary Sonography, Inc.
pawsonography@gmail.com
530-786-8340



Clinical Sonography & Telectylogy
Educational Teleconsultation Services™

SonoPath

FOSTERING THE ART OF VETERINARY MEDICINE™

SonoPath.com  info@sonopath.com  1.800.838.4268

PATIENT

Wilma Baumer

Maggie Machen Lamy, DVM

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

info@sonopath.com

SPECIES

Canine

BREED

Goldendoodle

SEX

Female Spayed

AGE

3.31.16

WEIGHT

77.2lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

**IMAGING
PERFORMED BY**

Loetitia Saint-Jacques,
LVT

HOSPITAL NAME

Incline Veterinary
Hospital

REFERRING VET

Dr. Kateryna

INVOICE

47399

DATE

4/1/26