

PATIENT

Snowy Monahan

SPECIES

Canine

BREED

Golden Retriever

SEX

Male Neutered

AGE

8 years

WEIGHT

75.5lbs

INTERPRETED BY

Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY

Pamela Harrigan, RDCS

HOSPITAL NAME

Mass Veterinary Services

REFERRING VET

Dr. Masloski

INVOICE

32343

DATE

8/14/23

PRESENTING CLINICAL SIGNS

History: Snowy had a collapse episode in April and was seen by an emergency clinic. The collapse episode occurred after he got up from a nap and went out to go to the bathroom. He was on a grain free diet. On presentation, he was noted to be dyspneic with ascites. He was started on Pimobendan and Lasix, and Taurine at that time. Snowy has been doing well since starting medications but is a bit PU/PD with the Lasix. No further collapse episodes and he has no dyspnea. On exam: NSR, grade II/VI murmur with PMI left apical area, PSS, lung fields clear, mm pink, moist, CRT<2. BP: 190 mmHg x 5. Current medications: 1) Pimobendan/vetmedin 10mg 1 tab twice a day 2) Lasix/furosemide 50mg 1.5 tabs twice a day 3) Taurine 636mg twice a day *No sedation for study.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available. **Left ventricle:** The LV diameter is significantly increased with marked systolic dysfunction. LV wall thicknesses are mildly decreased. The LV is spherical in appearance. **Left atrium:** The left atrium is severely dilated. **Mitral valve:** The mitral valve is mildly thickened with no prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation with a normal velocity. **Aortic valve/Aorta:** The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. No aortic insufficiency. **Right ventricle:** Mild RV enlargement. **Right atrium:** Mild RA enlargement. **Tricuspid valve:** The tricuspid valve appears thickened with mild to moderate tricuspid regurgitation. Velocity consistent with early pulmonary hypertension. **Pulmonary valve/Pulmonary artery:** The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow. **Pericardium/other:** No pericardial or pleural effusion noted. No obvious cardiac masses. **Heart rhythm:** ECG reveals a sinus rhythm with an average HR of 90bpm.

2-Dimensional Measurements

Ao diam (cm)	2.1
LA diam (cm)	4.5
LA:Ao (Swe)	2.1
IVS thickness (cm)	1.0
LVID diastole (cm)	7.8
PW thickness (cm)	0.9
LVID systole (cm)	7.1
FS (%)	9

Doppler Measurements

PV Vmax (m/s)	0.6
AoV Vmax (m/s)	1.7
MR Vmax (m/s)	5.3
TR Vmax (m/s)	2.9
TR PG (mmHg)	33

INTERPRETATION OF THE FINDINGS

Unfortunately, this patient has severe 4 chamber dilation and dysfunction, consistent with the DCM phenotype. Moderate MR and TR are suspected to be secondary to dilation. The LA is severely enlarged suggesting high risk for decompensation. No additional issues are identified in this study.

Dilation and dysfunction can be primary in nature (primary DCM) or develop secondary to taurine deficiency, myocarditis, tachycardia-induced cardiomyopathy, or infiltrative disease such as lymphoma. Given the diet history, there is also concern for correlation with a grain free diet in light of recent reports. A diet change is certainly recommended as



PATIENT
Snowy Monahan

SPECIES
Canine

BREED
Golden Retriever

SEX
Male Neutered

AGE
8 years

WEIGHT
75.5lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

IMAGING PERFORMED BY

Pamela Harrigan,
RDCS

HOSPITAL NAME

Mass Veterinary
Services

REFERRING VET

Dr. Masloski

INVOICE

32343

DATE

8/14/23

has been done as this is potentially the only treatable cause of these findings. That being said, cases this severe will often show minimal to no improvement. A taurine level may be helpful as well, although supplementing taurine regardless of systemic levels is recommended as below. Finally, further systemic evaluation for underlying infiltrative contribution such as neoplasia may also be reasonable (abdominal ultrasound, tick titers, etc.) although considered unlikely.

Given the history, CHF is confirmed and continued lifelong medications are warranted as below. Prognosis is guarded at this stage with most dogs succumbing to CHF within 6 months. There may be risk for development of congestive heart failure, malignant arrhythmias (AF, VT), collapse and/or sudden death in the future.

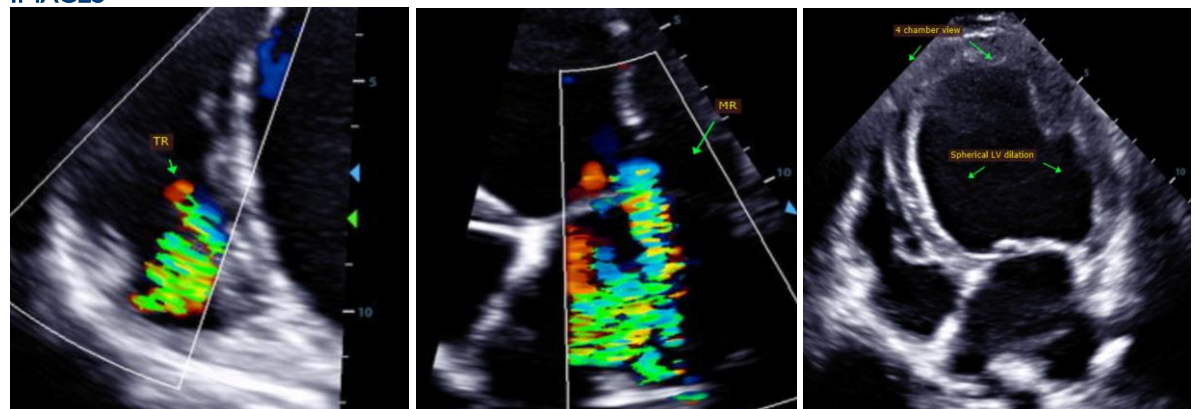
RECOMMENDATIONS

- Continue Pimobendan and Lasix as prescribed.
- Institute Spironolactone 1-2mg/kg PO q12h (available in 25 and 50mg tablets).
- Institute ACE-I 0.5mg/kg PO q12h.
- Administer taurine supplement 1000mg PO q12h.
- Consider hydrocodone with homatropine, 0.2 – 0.4 mg/kg PO up to q4-6 hours PRN for cough (available in 5/1.5mg tablets or 5mg/5ml solution).
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Elective anesthesia is not advised.
- Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes. Monitoring of sleeping breathing rates is recommended as the best way to screen for CHF going forward.

PLAN

- Monitor renal values in 1-2 weeks, then every 3-4 months lifelong.
- Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

IMAGES





Mass Veterinary
Services



SonoPath
Clinical Sonography & Telectology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Snowy Monahan

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.

SPECIES

Canine

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.

BREED

Golden Retriever

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

SEX

Male Neutered

Echocardiogram performed by: Pamela Harrigan, RDCS
Pet Animal Ultrasound Service (4paus.com)

AGE

8 years

WEIGHT

75.5lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

**IMAGING
PERFORMED BY**

Pamela Harrigan,
RDCS

HOSPITAL NAME

Mass Veterinary
Services

REFERRING VET

Dr. Masloski

INVOICE

32343

DATE

8/14/23