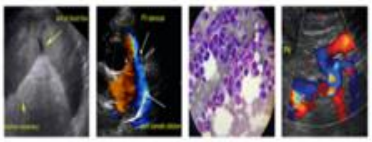
Mass Veterinary Services



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

PATIENT
Diesel Cyr

SPECIES
Canine

BREED
Great Dane

SEX
Male Neutered

AGE
8 years

WEIGHT
153.5lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
23389

DATE
3/31/22

PRESENTING CLINICAL SIGNS

History: Recheck echo. History lone/primary atrial fibrillation, atrial dilation, LV systolic dysfunction. Current presentation: Diesel is presently doing well at home with no coughing and no labored breathing. His appetite is periodically off. His activity level remains normal. No collapsing episodes but does slip and fall secondary to his hips. On auscultation: irregularly, irregular heartbeat, no murmurs noted, PSS, lung fields clear. BP: 230mmHg. Medications: 1) Pimobendan 20mg 1 tabs twice a day 2) Diltiazem 60mg 1 tab twice a day 3) Taurine 1000mg twice a day 4) Snip tips *Sedated with propofol for study.
-Pertinent previous echo findings (7/21/20 MML): LA 4.8 cm; LA:Ao 1.8; LV 5.4 cm; moderate LAE; moderate LV systolic dysfunction.

ELECTROCARDIOGRAPHIC FINDINGS *Note: Single lead ECGs are evaluated as a rhythm strip. Morphology/MEA cannot be definitively commented on.

A single lead ECG is available; 25mm/s, 20mm/mV. The average heart rate is 150bpm with an irregularly irregular rhythm. No obvious p waves. No ectopic beats, pauses or other dysrhythmias observed.
ECG diagnosis: Atrial fibrillation.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV diameter is mildly increased with moderate systolic dysfunction; FS 15%. LV wall thicknesses are normal. Mildly increased sphericity.
Left atrium: The left atrium is moderately dilated and bulbous in appearance.
Mitral valve: The mitral valve is normal with no prolapse into the left atrial lumen. Mild eccentric mitral regurgitation.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. No aortic insufficiency.
Right ventricle: Right ventricular is mildly dilated.
Right atrium: RA mildly dilated.
Tricuspid valve: The tricuspid valve appears normal with trivial tricuspid regurgitation.
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.

2-Dimensional Measurements

Ao diam (cm)	3.1
LA diam (cm)	5.0
LA:Ao (Swe)	1.6
IVS thickness (cm)	1.3
LVID diastole (cm)	5.2
PW thickness (cm)	1.3
LVID systole (cm)	4.5
FS (%)	15

Doppler Measurements

PV Vmax (m/s)	0.7
AoV Vmax (m/s)	1.5
MR Vmax (m/s)	NM
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

Compared to the prior study, there is evidence of minimal progression. The LA and LV are slightly increased comparatively; however, the systolic dysfunction is unchanged. Mild MR and trivial TR remain hemodynamically insignificant. No additional issues are identified.

The ECG shows persistent atrial fibrillation (AF), with a stable average heart rate on Diltiazem. No ventricular arrythmias or other issues are identified.

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Even with stable disease seen here, patient will always be at risk for progression to CHF, development of malignant arrythmias and/or sudden death in the future. It is encouraging given the timeframe that the patient continues to do well however, with relatively stable disease. No obvious indication for additional medications at this time.

The reported blood pressure is elevated and should be reassessed for accuracy particularly given no reported clinical signs of severe hypertension (retinal changes, etc.) or evidence of LVH on echo. Ideally obtain serial measurements in a controlled, low stress environment and continue until 3 consecutive readings plateau within 5mmHg of variability. If persistently >180mmHg despite a relatively calm demeanor, recommend institution of amlodipine to effect. Additionally, if deemed accurate, screening for predisposing underlying causes of SHT is recommended (Cushings, PLN, adrenal tumor, etc.), as primary disease is relatively uncommon and a rule out diagnosis.

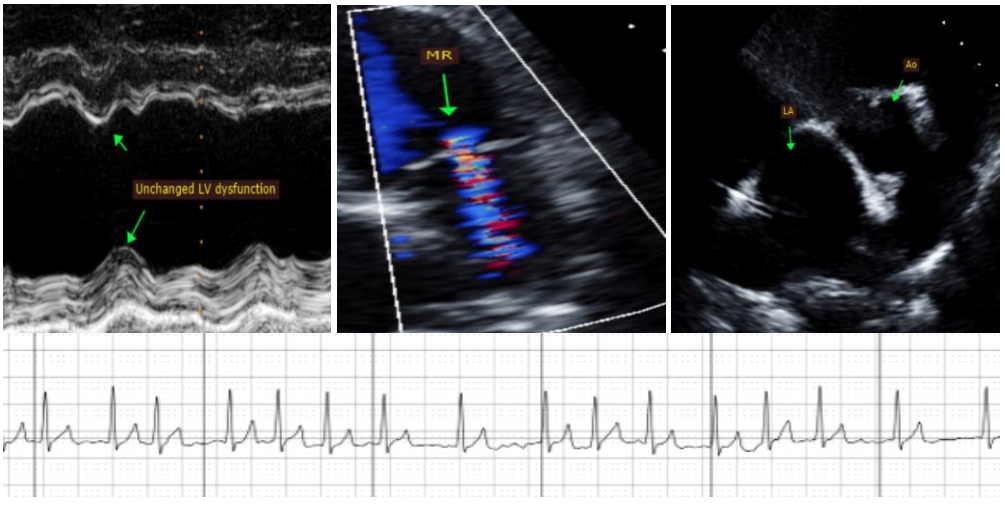
RECOMMENDATIONS

- Continue Pimobendan, Diltiazem and Taurine as prescribed.
- Reassess BP and treat if indicated.
- Omega fatty acid supplementation may be of some long-term benefit.
- Anesthetic risk is considered mildly elevated if needed. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Mild IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.
- Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

PLAN

- Recheck heart rate/ECG/BP every 3-4 months lifelong.
- Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

IMAGES



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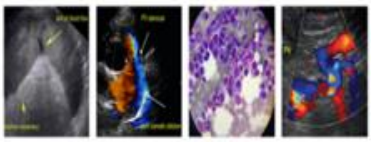

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

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