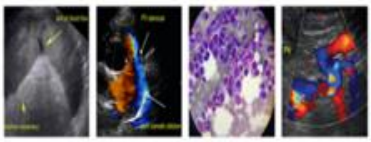
Mass Veterinary Services



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

PATIENT
Claymore Flechfig

SPECIES
Canine

BREED
Shetland Sheepdog

SEX
Male Neutered

AGE
10 years

WEIGHT
33.8lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
30176

DATE
4/11/23

PRESENTING CLINICAL SIGNS

History: Claymore was noted to have an arrhythmia in December. He is presently doing well at home. Snores when sleeping; good appetite and normal activity level. On exam: arrhythmia, no murmurs noted, PSS, lung fields clear, compressible thorax, mm pink, moist, CRT<2. BP: 140mmHg x 4. *Sedated with propofol for study.

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 underlying rhythm is sinus in origin with an average heart rate of 175bpm. P for every QRS complex and vice versa. P and QRS morphologies are positive. Supraventricular arrythmias are seen throughout. Ranging from isolated APCs to brief salvos of SVT (heart rate: 280bpm). No Ventricular premature beats, pauses or other dysrhythmias observed.
ECG diagnosis: Normal sinus tachycardia with frequent proximal SVT.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV is normal in diastole with an increased systolic dimension. Systolic function is asymmetric with a hypokinetic free wall noted. Increased LV sphericity.
Left atrium: The left atrium is moderate to severely dilated.
Mitral valve: The mitral valve is mildly thickened with no prolapse into the left atrial lumen. Moderate central mitral regurgitation. 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: Normal RV.
Right atrium: Normal RA.
Tricuspid valve: The tricuspid valve appears normal with mild tricuspid regurgitation. Normal velocity.
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)	1.7
LA diam (cm)	3.5
LA:Ao (Swe)	2.1
IVS thickness (cm)	0.8
LVID diastole (cm)	3.4
PW thickness (cm)	0.8
LVID systole (cm)	2.8
FS (%)	17

Doppler Measurements

PV Vmax (m/s)	1.0
AoV Vmax (m/s)	1.5
MR Vmax (m/s)	5.2
TR Vmax (m/s)	2.6
TR PG (mmHg)	28

INTERPRETATION OF THE FINDINGS

Unusual case. The primary abnormality identified is asymmetric LV dysfunction with a hypokinetic free wall. The LV is not significant dilated in diastole, which is inconsistent with a typical DCM phenotype. This may suggest an infarct leading to the asymmetric appearance with secondary LA enlargement developing. Regardless, what is seen here is concerning and warrants close monitoring. MR and TR may suggest a concurrent valve issue and follow up is recommended. No additional issues are identified in this study.

Mass Veterinary Services

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

PATIENT
Claymore Flechfig

SPECIES
Canine

BREED
Shetland Sheepdog

SEX
Male Neutered

AGE
10 years

WEIGHT
33.8lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
30176

DATE
4/11/23

While an atypical form of DCM cannot be ruled out, consider other possible contributing issues such as taurine deficiency, myocarditis, tachycardia-induced cardiomyopathy, or infiltrative disease such as lymphoma. A thorough diet history is recommended avoiding nontraditional options. 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.

The ECG shows intermittent supraventricular tachycardia (SVT) with frequent APCs. What is seen here is mild; however, there is concern given the totality of the findings. Based upon this, use of Diltiazem is recommended as below.

Prognosis is guarded at this stage, although no symptoms are mentioned, which is a good sign. Cardiac supportive Pimobendan is recommended with no indication for diuretic therapy.

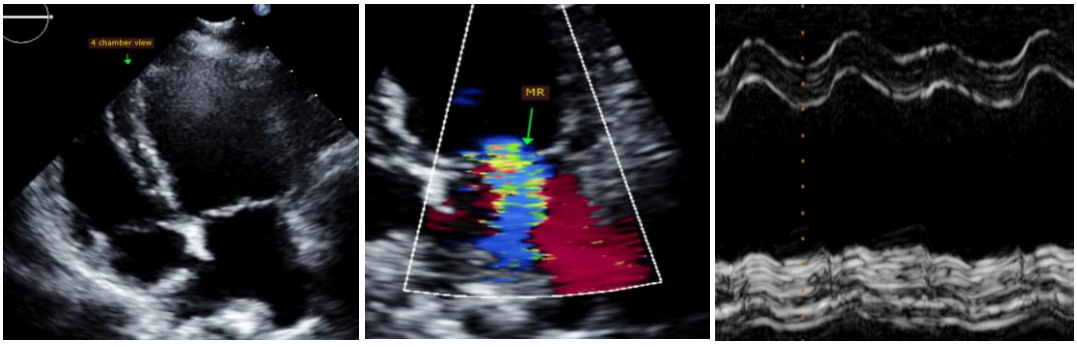
RECOMMENDATIONS

- Institute administer heart muscle support Pimobendan (Vetmedin) 0.3mg/kg PO q12h.
- Administer taurine supplement 1000mg PO q12h.
- Administer Diltiazem 30mg PO q8h.
- Reassess ECG and/or holter monitor in 1-2 weeks to assess response, sooner if clinical signs arise in the interim.
- Consider hydrocodone with homatropine if needed for quality of life, 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).
- Diet change, taurine levels, further systemic evaluation as discussed.
- 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

- Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any clinical signs arise in the interim.

IMAGES



Mass Veterinary Services

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

PATIENT
Claymore Flechfig

SPECIES
Canine

BREED
Shetland Sheepdog

SEX
Male Neutered

AGE
10 years

WEIGHT
33.8lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

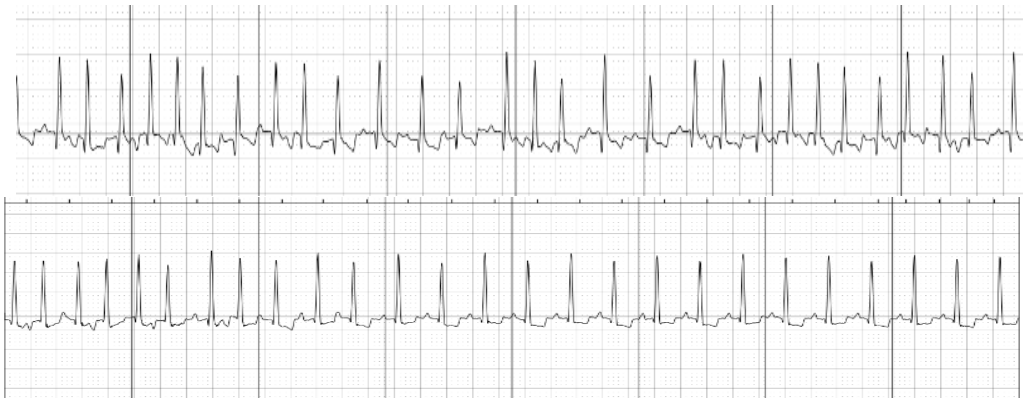
IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
30176

DATE
4/11/23



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)