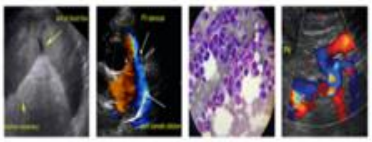
Mass Veterinary Services



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

PATIENT
Finn Quesnel

SPECIES
Canine

BREED
Beagle

SEX
Male Neutered

AGE
10 years

WEIGHT
42.1lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
32476

DATE
8/22/23

PRESENTING CLINICAL SIGNS

History: Finn has a history of chronic valvular disease, treated with Pimobendan and Lasix since September 2019 (no record of a previous echocardiogram). Currently, he has been coughing excessively at home, sometimes to the point of coughing up clear fluid. His murmur has also become more pronounced. He is eating well with normal activity level. History hypothyroidism. On exam: NSR, grade IV/VI murmur with PMI left apical area radiating to right, PSS, lung fields clear, no cough with tracheal palpation, mm pink, moist, CRT<2. BP: 190mmHg x 5 (panting) 1) Levothyroxine 0.4mg 1 tab twice a day 2) Pimobendan 5mg 1 tab twice a day 3) Lasix 40mg 2 tabs twice a day (8.4mg/kg per day). Plan: disp diphenoxylate with atropine 2.5mg 1 tab twice a day as needed to control cough *Sedated with propofol for study.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: Significant LV dilation with mildly depressed myocardial function. LV wall thicknesses are normal.
Left atrium: The left atrium is markedly enlarged with a horizontal component.
Mitral valve: Diffuse thickening of mitral valve leaflets (anterior> posterior) with no prolapse into the left atrial lumen. Severe 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. Mild to moderate aortic insufficiency.
Right ventricle: Mild RV dilation.
Right atrium: Mild right atrial dilation.
Tricuspid valve: The tricuspid valve appears mildly thickened with mild septal prolapse and moderate tricuspid regurgitation. Normal velocity.
Pulmonic valve/Pulmonary artery: The pulmonic valve is normal with normal pulmonic outflow velocity. No pulmonic insufficiency.
Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.
Heart rhythm: ECG reveals a sinus rhythm with an average HR of 166bpm.

2-Dimensional Measurements

Ao diam (cm)	2.2
LA diam (cm)	4.0
LA:Ao (Swe)	1.8
IVS thickness (cm)	0.9
LVID diastole (cm)	4.7
PW thickness (cm)	0.9
LVID systole (cm)	3.2
FS (%)	33

Doppler Measurements

PV Vmax (m/s)	0.5
AoV Vmax (m/s)	1.0
MR Vmax (m/s)	5.2
TR Vmax (m/s)	2.0
TR PG (mmHg)	16

INTERPRETATION OF THE FINDINGS

The cause of the murmur is chronic degenerative valve disease causing severe mitral and moderate tricuspid regurgitation. Marked left atrial enlargement indicates the risk for spontaneous congestive heart failure is elevated. Significant TR is also noted, without evidence of mild pulmonary hypertension. Finally, an aortic valve insufficiency is identified, and lifelong BP monitoring is advised. No additional issues such as systolic dysfunction are identified.

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The described cough is likely multifactorial in origin. While certainly heart disease may be contributing, the patient is already on high dosages of Lasix with the symptom persisting. This likely suggest a primary respiratory issue is contributing, particularly given the breed. Highly recommend CXR for further evaluation. Further Lasix increases should not be done unless CHF is confirmed. Given the chronicity of the dose and apparent tolerance, reasonable to continue at this time with addition of Spironolactone and an ACE-I. Cough suppression is recommended, assuming pulmonary edema is not present.

The average survival of canine patients with active pulmonary edema is 8-9 months on medications, however they generally are able to maintain a good quality of life for that period. Patient will always be at risk for recurrent CHF, development of arrhythmias/LA tear, syncope and/or sudden death in the future. Monitoring of renal values is recommended lifelong.

The blood pressure is elevated, although the patient is notably stressed. Reassessment is recommended in the future to ensure additional vasodilator therapy is not necessary.

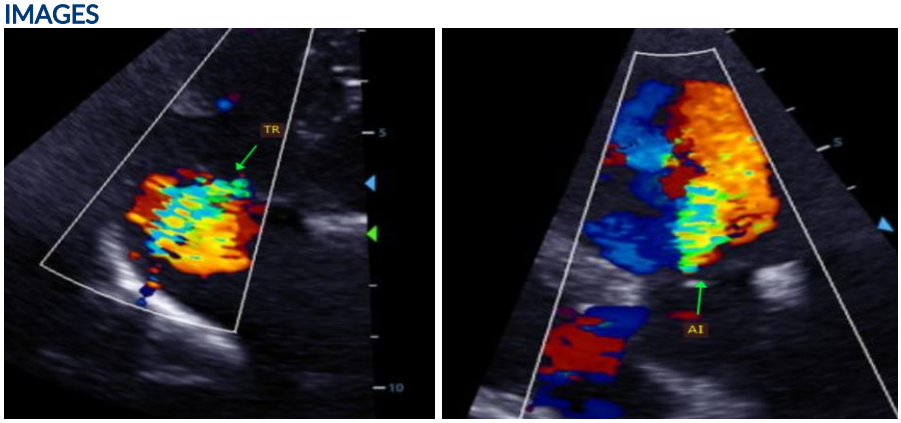
RECOMMENDATIONS

- Baseline CXR strongly recommended.
- Institute Spironolactone, 1-2mg/kg PO q12h.
- Institute ACE-I 0.5mg/kg PO q12h.
- Continue Lasix and Pimobendan as prescribed, assuming renal values will allow.
- Institute Hydrocodone or similar as needed.
- Reassess blood pressure in 2-3 months.
- Elective anesthesia is not advised.
- Monitor for development of a cough, collapse episodes, significant lethargy in the future. Monitoring of sleeping breathing rates is recommended best way to screen for CHF in the future.

PLAN

- Monitor renal values in 1-2 weeks and then every 4 months on medications.
- A recheck echocardiogram is recommended in 6 months to screen for progression, sooner if clinical signs arise/persist.

IMAGES



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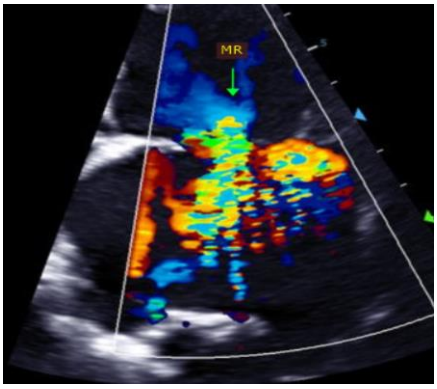

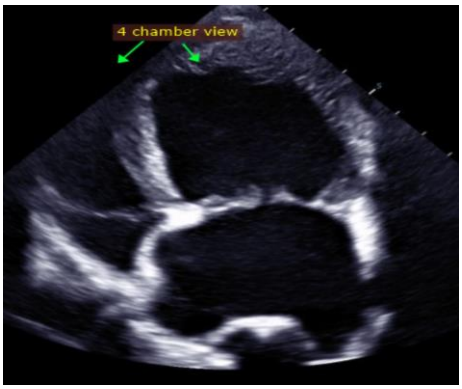

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)