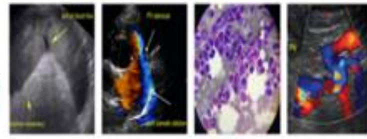
Mass Veterinary Services



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

PATIENT
Finn Zwicker

SPECIES
Canine

BREED
Yorkshire Terrier

SEX
Male Neutered

AGE
10 years

WEIGHT
11.31lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
25982

DATE
8/24/22

PRESENTING CLINICAL SIGNS

History: Finn presented to ER on the 20th with a chief complaint of dyspnea. He was placed in oxygen with chest films revealing left sided cardiomegaly, mild focal pulmonary venous distension as well as mild tracheal and main stem bronchus narrowing. He was started on Lasix and trazodone and discharged with these medications as well as pimobendan. He has been doing well since. He does cough occasionally. Finn is eating well with normal activity. On exam: NSR, grade IV/VI murmur with PMI left apical area radiating to right, PSS, lung fields clear. BP: 130-140mmHg. Medications: 1) Pimobendan/vetmedin 1.25mg 1.25 tabs twice a day 2) Lasix/furosemide 12.5mg 1/2 tab twice a day *No sedation for study.
-Pertinent previous echo findings (11/23/21 Rima Kharbush, DVM, DACVIM-Cardiology): LA 2.36 cm; LA:Ao 2.32; LV 3.01 cm; severe LAE; moderate LVE; severe MR; mild TR (3.05 m/s; 37 mmHg); mild pulmonary hypertension

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: Mild LV dilation with hyperdynamic myocardial function.
Left atrium: The left atrium is markedly dilated.
Mitral valve: Diffuse thickening of mitral valve leaflets with prolapse into the left atrial lumen. Evidence of a ruptured chordae tendineae (see below). Marked 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 dilation.
Right atrium: Mild right atrial dilation.
Tricuspid valve: The tricuspid valve appears mildly thickened, with mild tricuspid regurgitation. Mildly elevated velocity consistent with mild pulmonary hypertension.
Pulmonic valve/Pulmonary artery: The pulmonic valve is normal in morphology and mobility. The MPA appears mildly dilated. Normal pulmonic outflow velocities with laminar flow. No PI.
Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.
Heart rhythm: ECG reveals a sinus rhythm with an average HR of 200bpm.

2-Dimensional Measurements

Measurement	Value
Ao diam (cm)	1.1
LA diam (cm)	3.1
LA:Ao (Swe)	2.8
IVS thickness (cm)	0.62
LVID diastole (cm)	3.3
PW thickness (cm)	0.72
LVID systole (cm)	1.2
FS (%)	64

Doppler Measurements

Measurement	Value
PV Vmax (m/s)	0.76
AoV Vmax (m/s)	1.1
MR Vmax (m/s)	5.1
TR Vmax (m/s)	2.8
TR PG (mmHg)	32

INTERPRETATION OF THE FINDINGS

Chronic degenerative valve disease persists with evidence of progression. Moderate disease has progressed significantly and there is a suspect ruptured chordae tendineae. Mild pulmonary hypertension is noted, which is likely secondary to chronic LA pressure elevation. No additional issues are identified.

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In light of the recent clinical signs and finding of a ruptured chord, the diagnosis of congestive heart failure is supported and continued lifelong cardiac medications are recommended as below.

The average survival time 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.

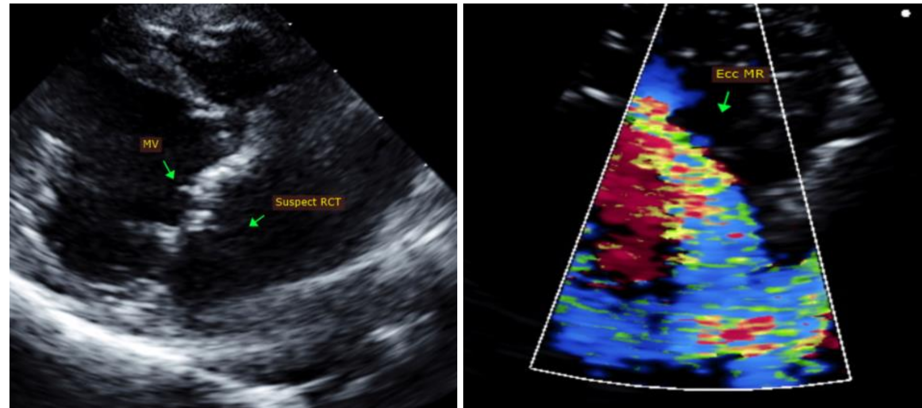
RECOMMENDATIONS

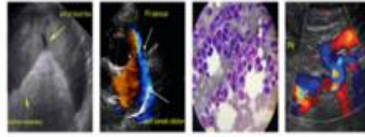
- Continue Lasix/furosemide 1-2mg/kg PO q12h.
- Institute Spironolactone 1-2 mg/kg PO q 12h.
- Continue Pimobendan 0.25-0.3 mg/kg PO q12h.
- Institute ACE-I 0.5mg/kg PO q12h.
- Cough suppression to improve QOL can also be considered (hydrocodone, 0.2-0.4mg/kg up to q4-6h PRN) for any residual mechanical cough in the face of normal sleeping respiratory rates.
- Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.
- Monitoring of sleeping respiratory rates will be paramount to screen for congestive heart failure at home.
- Elective anesthesia is not advised.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.

PLAN

- Monitor renal values and BP 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





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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)