



PATIENT

Puppaccino Russell

SPECIES

Canine

BREED

Pomeranian

SEX

Female Spayed

AGE

10 years

WEIGHT

6.5lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

PRESENTING CLINICAL SIGNS

History: Recheck echo. History chronic valvular disease - Stage B1. History probable seizures (July 2020). Currently, doing well at home; good appetite and normal activity level. Some labored breathing per owner; however, no coughing. No seizure or collapse episodes. On exam: grade III-IV/VI holosystolic murmur.
-Pertinent previous echo findings (7/31/20 Nancy Laste, DVM, DACVIM-Cardiology): LA 1.36 cm; LA:Ao 1.17; LV 2.26 cm; normal LA size; moderate MR. No clinical support for advanced heart disease or pulmonary hypertension as a cause of syncope (vs. seizure). Vasodepressor mechanisms cannot be ruled out. No cardiac therapy indicated.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV diameter is increased with hyperdynamic function. LV wall thicknesses are normal.
Left atrium: The left atrium is severely dilated.
Mitral valve: The mitral valve is diffusely thickened with prolapse into the left atrial lumen. Severe eccentric mitral regurgitation with a normal velocity.
Aortic valve/Aorta: The aortic valve appears normal with a normal outflow velocity; laminar flow. No aortic insufficiency.
Right ventricle: Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension.
Right atrium: Normal RA dimension.
Tricuspid valve: The tricuspid valve appears mildly thickened with mild to moderate tricuspid regurgitation; normal velocity.
Pulmonic 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)	1.0
LA diam (cm)	2.4
LA:Ao (Swe)	2.3
IVS thickness (cm)	0.55
LVID diastole (cm)	2.8
PW thickness (cm)	0.57
LVID systole (cm)	1.0
FS (%)	64

Doppler Measurements

PV Vmax (m/s)	0.75
AoV Vmax (m/s)	1.6
MR Vmax (m/s)	4.8
TR Vmax (m/s)	2.6
TR PG (mmHg)	27

IMAGING

PERFORMED BY

Pamela Harrigan,
RDMS

HOSPITAL NAME

Wignall Animal
Hospital

REFERRING VET

Dr. Cramb

INVOICE

24300

DATE

5/19/22

INTERPRETATION OF THE FINDINGS

Chronic degenerative valve disease causing severe mitral and mild to moderate tricuspid regurgitation. Compared to the prior study, there is certainly evidence of progression with severe disease noted here. The LA is significantly dilated indicating an elevated risk for clinical signs going forward. TR is noted with no significant elevation in pulmonary pressures. No additional concurrent issues are documented.

With this degree of left heart changes, the risk for spontaneous congestive heart failure is elevated and cardiac supportive medications are indicated as below. A weak diuretic



PATIENT

Puppaccino Russell

SPECIES

Canine

BREED

Pomeranian

SEX

Female Spayed

AGE

10 years

WEIGHT

6.5lbs

INTERPRETED BY

Maggie Machen
 Lamy, DVM
 DACVIM (Cardiology)

IMAGING PERFORMED BY

Pamela Harrigan,
 RDCS

HOSPITAL NAME

Wignall Animal
 Hospital

REFERRING VET

Dr. Cramb

INVOICE

24300

DATE

5/19/22

(spironolactone) is included given high risk for decompensation in the future even with no reported symptoms. Assessment of progression in the future will help predict long term outcome, however prognosis is guarded at this stage (late B2). Unfortunately, the patient will always be at risk for recurrent CHF, development of arrhythmias/LA tear, syncope and/or sudden death in the future.

If episodes of labored breathing persists, baseline chest radiographs are strongly recommended.

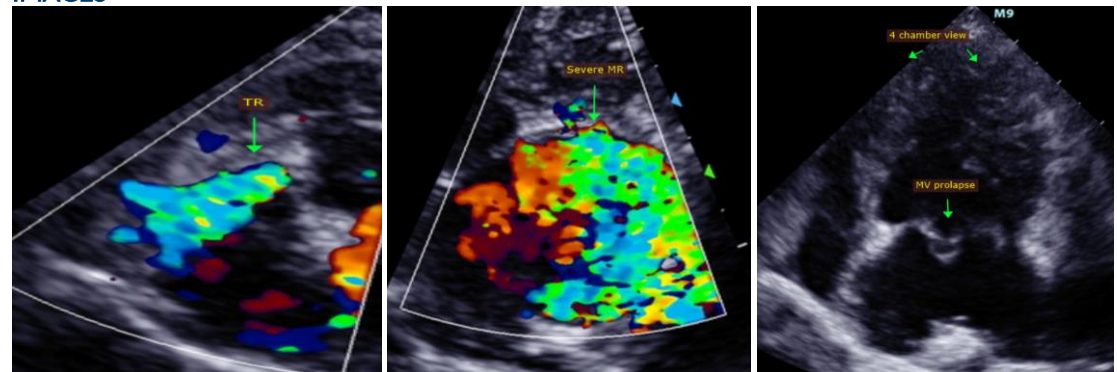
RECOMMENDATIONS

- Consider baseline CXR.
- Institute Pimobendan 0.3mg/kg PO q12h.
- Institute ACE-I (benazepril or enalapril) 0.5mg/kg PO q12h.
- Institute spironolactone 1-2mg/kg PO q12h.
- Close monitoring for development of associated clinical signs (development of a cough, labored breathing, exercise intolerance or worsening collapse episodes) is recommended. Monitoring of sleeping breathing rates is recommended as the best way to screen for CHF at home.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Mild activity restriction is advised.
- Elective anesthesia is not advised, as there is high risk for complication. If necessary, cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, iso or sevoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction and recover in O2 cage. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Moderate IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

PLAN

- A renal panel is recommended 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



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



PATIENT

Puppaccino Russell

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

Pomeranian

Maggie Machen Lamy, DVM

Diplomate of the American College of Veterinary Internal Medicine (Cardiology)

info@sonopath.com

SEX

Female Spayed

AGE

10 years

WEIGHT

6.5lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

**IMAGING
PERFORMED BY**

Pamela Harrigan,
RDCS

HOSPITAL NAME

Wignall Animal
Hospital

REFERRING VET

Dr. Cramb

INVOICE

24300

DATE

5/19/22