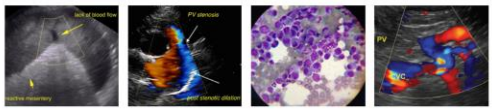
PAUS
Pet Animal Ultrasound Service
4paus.com 781-635-5677



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

PATIENT
Raya Palmer

SPECIES
Canine

BREED
Australian Shepherd

SEX
Female Spayed

AGE
7 years

WEIGHT
45lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Wood River Animal Hospital

REFERRING VET
Dr. Fischer

INVOICE
24574

DATE
6/3/22

PRESENTING CLINICAL SIGNS

History: History of persistent cough without obvious cause. Grade II/VI systolic murmur. 3 view chest rads unremarkable (mild bronchointersitital pattern). BP: 110mmHg.
*Sedated with gabapentin, trazadone and propofol for study.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV diameter is normal with adequate myocardial function. LV wall thicknesses are normal.
Left atrium: The left atrium is normal.
Mitral valve: The mitral valve is mildly thickened with no prolapse into the left atrial lumen. Trace 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: 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 normal with trace/mild tricuspid regurgitation; normal velocity.
Pulmonic valve/pulmonary artery: The pulmonic valve is normal in morphology and mobility. Trace pulmonic insufficiency. Normal RVOT velocity; laminar flow.
Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.
Heart rhythm: ECG reveals a sinus rhythm with an average HR of 80bpm.

2-Dimensional Measurements

Ao diam (cm)	2.3
LA diam (cm)	2.3
LA:Ao (Swe)	1.0
IVS thickness (cm)	0.93
LVID diastole (cm)	3.3
PW thickness (cm)	0.97
LVID systole (cm)	2.2
FS (%)	32

Doppler Measurements

PV Vmax (m/s)	0.62
AoV Vmax (m/s)	1.2
MR Vmax (m/s)	NM
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 trace leaks in the mitral and tricuspid valves. The disease is considered subclinical without hemodynamic significance. No evidence of pulmonary hypertension or other contributing issues at this time.

Given these findings, the cough is unlikely to be cardiac in origin and primary respiratory causes should be considered. Consider further respiratory work up/treatment (hydrocodone, taper course of steroids, Enrofloxacin, TTW/BAL, etc.).

Assessment of progression in the future will help predict long term prognosis, which is highly variable at this stage (B1).

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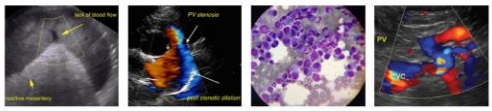

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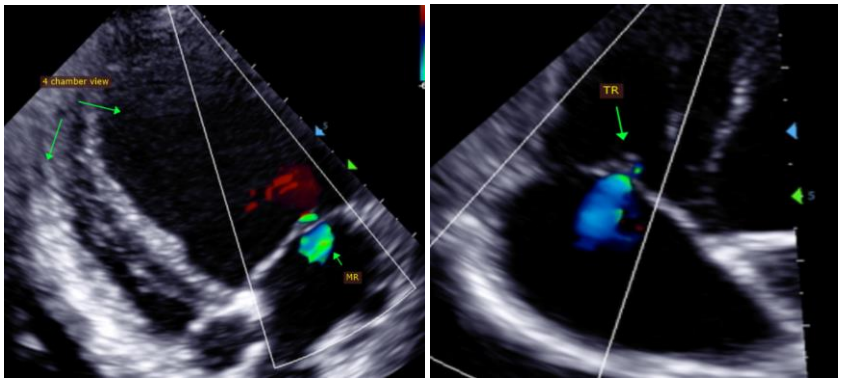
RECOMMENDATIONS

- Given these findings, no cardiac medications are clearly indicated.
- Chronic respiratory issues can lead to development of pulmonary hypertension over time. Monitor for signs of PAH, including exertional syncope or dyspnea.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Anesthetic risk is considered mild 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

- Recommend conservative monitoring with a recheck echocardiogram in 6-12 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 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
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