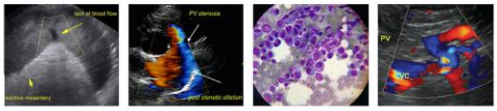
Mass Veterinary Specialty Services
1-413-734-1292



SonoPath
Clinical Sonography & Telecytology
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PATIENT
Priness Flynn

SPECIES
Canine

BREED
Terrier Mix

SEX
Female Spayed

AGE
12 years

WEIGHT
60.2lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Specialty Services

REFERRING VET
Dr. Masloski

INVOICE
21164

DATE
9/22/21

PRESENTING CLINICAL SIGNS

History: Princess was recently diagnosed with a brain tumor and is currently on phenobarbital, keppra and prednisone to control her tumor-related seizure activity. She was recently noted to have a heart murmur. No seizures since July. She is occasionally ataxic and sometimes her hind end collapses. She is eating very well; tends to be a bit lethargic. CV/RESP: NSR, grade III/VI murmur with PMI left apical area PSS lung fields clear. BP: 120-130mmHg.
-Current medications: 1) Phenobarbital 32.4mg 3.5 tabs twice a day 2) Keppra 500mg 1 tab three times a day 3) Prednisone 10mg 1.5 tabs twice a day 3) Omeprazole 20mg daily *No sedation.

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, 10mm/mV. The average heart rate is 100bpm (range 88-115bpm). The rhythm is sinus in origin, with a p for every QRS complex and vice versa. P and QRS morphologies are positive. Isolated VPCs; 4 in a one-minute tracing. The VPCs are monomorphic and singles only. No supraventricular premature beats, pauses or other dysrhythmias observed.
ECG diagnosis: Normal sinus rhythm with isolated VPCs.

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 mildly dilated.
Mitral valve: The mitral valve is mildly thickened with mild prolapse into the left atrial lumen. Mild eccentric mitral regurgitation with an elevated 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 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 septal prolapse and mild 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)	2.3
LA diam (cm)	3.8
LA:Ao (Swe)	1.5
IVS thickness (cm)	1.1
LVID diastole (cm)	3.6
PW thickness (cm)	1.1
LVID systole (cm)	2.2
FS (%)	39

Doppler Measurements

PV Vmax (m/s)	0.53
AoV Vmax (m/s)	1.0
MR Vmax (m/s)	6.2
TR Vmax (m/s)	2.2
TR PG (mmHg)	20

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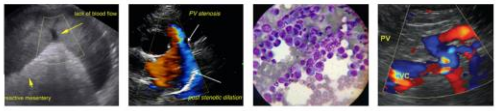

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INTERPRETATION OF THE FINDINGS

Chronic degenerative valve disease causing mild mitral and mild tricuspid regurgitation. Lack of significant left atrial enlargement indicates the current risk for complication is low. No concurrent issues such as pulmonary hypertension are noted in this study.

Isolated VPCs are seen on the ECG. In a dog with a diagnosed brain tumor, these are likely due to a combination of neurologic and mild cardiac disease. What is seen here does not warrant therapy and is unlikely to cause clinical issues. Monitor at home for any signs of sustained arrythmias, such as acute lethargy or collapse. A holter monitor can be considered to fully understand the extent of the arrythmia should any symptoms arise.

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

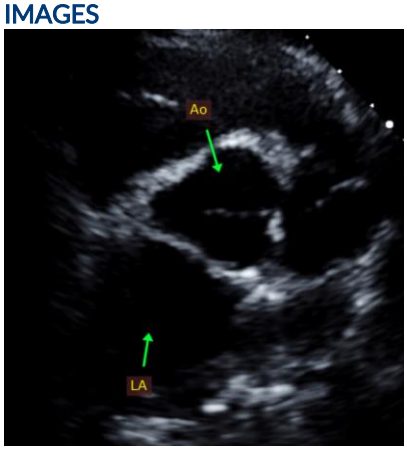
RECOMMENDATIONS

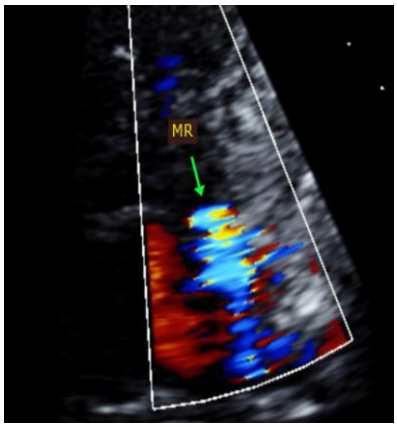
- Given these findings, no cardiac medications are clearly indicated.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Anesthetic risk is considered mild if needed. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone 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.

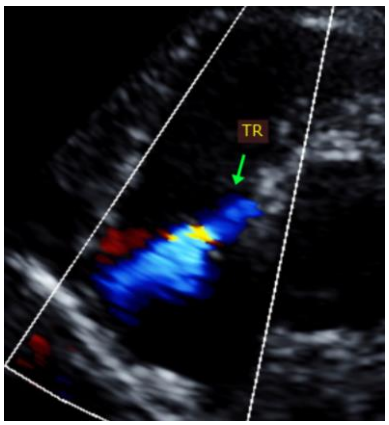
PLAN

- Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

IMAGES







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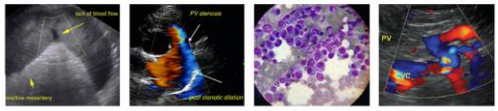

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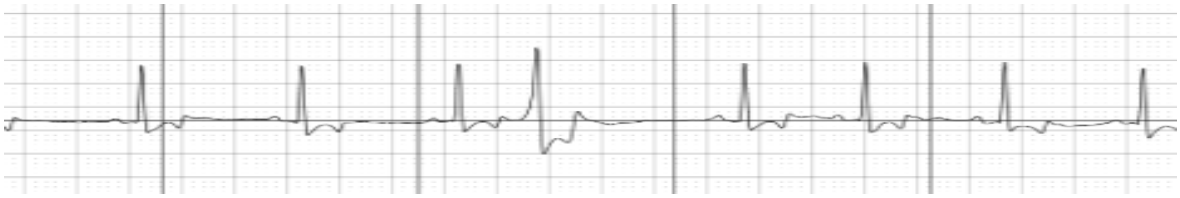

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)