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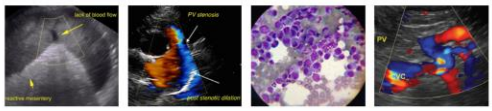

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PATIENT
Cooper Averill

SPECIES
Canine

BREED
Cavalier

SEX
Male Neutered

AGE
13 years

WEIGHT
13.4lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Norfolk County Veterinary Service

REFERRING VET
Dr. Poor

INVOICE
29499

DATE
3/9/23

PRESENTING CLINICAL SIGNS

History: Recheck echo. History chronic valvular disease- Stage B1. Presently, Cooper is doing well clinically. Murmur has increased to grade V. No clinical signs. BP: 140-150mmHg. Sedated with torb/alfaxan, but because he was uncooperative, not all of the sedation was given. He became dysmorphic and stressed, became pale bluish, given some flow by.
-Pertinent previous echo findings (3/25/21 MML, 2/3/22 Rima Karbush): LA 1.91, LA: Ao 1.40, LV 2.21, normal chamber sizes, moderate MR, mild-moderate TR (2.55 m/s).

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, 5mm/mV. The average heart rate is 120bpm (range 75-166bpm). The rhythm is sinus in origin, with a p for every QRS complex and vice versa. P and QRS morphologies are positive. A brief salvo of SVT is appreciated with a heart rate of 214bpm. No VPCs, pauses or dysrhythmias observed.
ECG diagnosis: Normal sinus rhythm. Brief salvo of SVT.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV diameter is borderline with adequate function. LV wall thicknesses are normal.
Left atrium: The left atrium is moderately dilated.
Mitral valve: The mitral valve is diffusely thickened with mild prolapse into the left atrial lumen. Moderate to 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. 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 trace 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

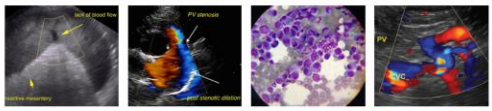
Ao diam (cm)	1.4
LA diam (cm)	2.5
LA:Ao (Swe)	1.65
IVS thickness (cm)	0.7
LVID diastole (cm)	2.5
PW thickness (cm)	0.7
LVID systole (cm)	0.9
FS (%)	62

Doppler Measurements

PV Vmax (m/s)	0.8
AoV Vmax (m/s)	1.4
MR Vmax (m/s)	5.3
TR Vmax (m/s)	2.3
TR PG (mmHg)	21

INTERPRETATION OF THE FINDINGS

Chronic degenerative valve disease causing moderate to severe mitral and trace tricuspid regurgitation persists. Compared to the prior study there is evidence of mild progression in left heart dimensions. Moderate left atrial enlargement indicates there is relatively low



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risk for imminent complication, however risk for progression to spontaneous congestive heart failure in the future is elevated. No additional issues are identified.

The ECG is largely normal, although a brief run of SVT is appreciated. The patient was notably stressed during the exam and this is the likely cause. Follow up is recommended if any acute lethargy or syncope develop in the future. No treatment is warranted at this time.

Given LA dilation, Pimobendan is recommended as below. Assessment of progression in the future will help predict long term outcome, however prognosis is guarded at this stage (B2).

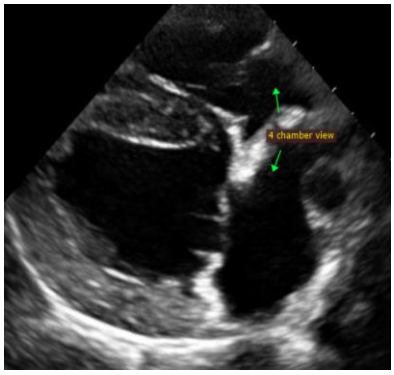
RECOMMENDATIONS

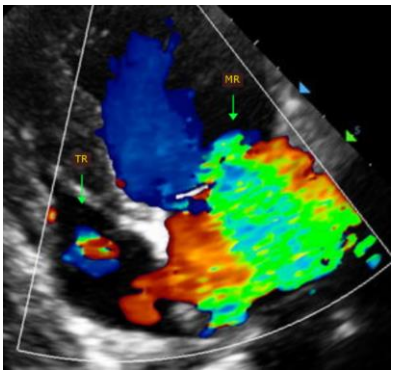
- Institute heart muscle support Pimobendan 0.3mg/kg PO q12h.
- Reassess ECG should any acute lethargy or syncope develop.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Once on Pimobendan for 3-5 days, anesthetic risk is considered mild if needed. Cardiac 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.

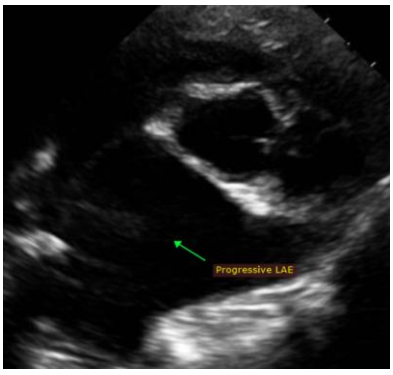
PLAN

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

IMAGES







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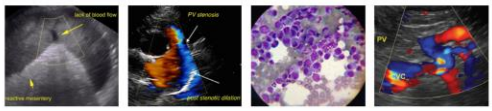

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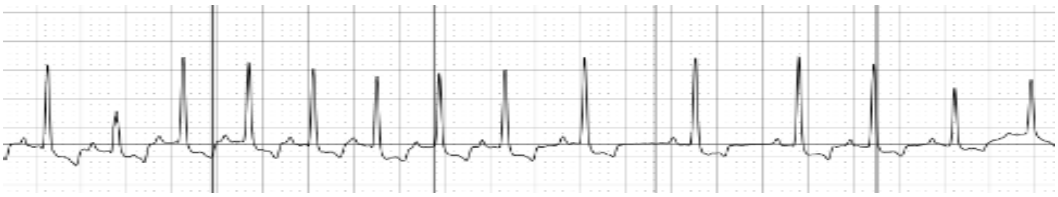

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)