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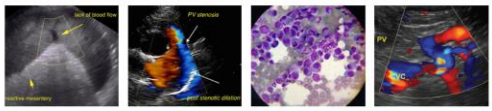


SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT
Boris Mendonca

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
13 years

WEIGHT
16.5lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Wignall Animal Hospital

REFERRING VET
Dr. Detelich

INVOICE
25075

DATE
6/30/22

PRESENTING CLINICAL SIGNS

History: Recheck echo. History HCM, stable on prior echo. Currently, Boris is doing well at home with no clinical issues. BP: 123, 123, 124mmHg.
-Pertinent previous echo findings (9/9/21 Maggie Machen Lamy, DVM, DACVIM-Cardiology): LA 1.3 cm; LA:Ao 1.1; IVS 0.64 cm; PW 0.70 cm; normal LA size; mild SAM with mild-moderate MR, LVOT Vmax 1.8 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, 20mm/mV. The average heart rate is 160bpm (range 115-215bpm). Dramatic heart rate variation; however, all complexes do appear sinus in origin. P for every QRS complex and vice versa. P and QRS morphologies are positive. No ectopic beats, pauses or dysrhythmias observed.
ECG diagnosis: Significant sinus node variability. Rule sinus arrythmia versus true sinus node dysfunction.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV diameter is decreased with adequate myocardial function. The LV wall thicknesses are moderately increased. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly remodeled.
Left atrium: The left atrium is normal. No obvious spontaneous contrast or thrombi seen.
Mitral valve: The mitral valve is normal in structure and mobility. Mild systolic anterior motion is seen with moderate eccentric. MR.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Aortic outflow is mildly elevated in velocity with a dynamic profile. Trace aortic insufficiency.
Right ventricle: Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension.
Right atrium: The right atrium is normal in dimension.
Tricuspid valve: The tricuspid valve appears normal with no tricuspid regurgitation.
Pulmonic valve/Pulmonary artery: The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow. Pulmonary artery is mildly dilated.
Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.

2-Dimensional Measurements

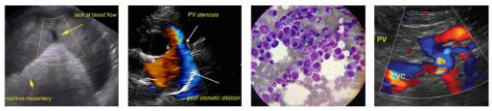
Ao diam (cm)	1.1
LA diam (cm)	1.2
LA:Ao (Swe)	1.1
IVS thickness (cm)	0.76
LVID diastole (cm)	1.1
PW thickness (cm)	0.77
LVID systole (cm)	0.6
FS (%)	45

Doppler Measurements

PV Vmax (m/s)	1.3
AoV Vmax (m/s)	2.7
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

HOCM persists with evidence of progression. The wall thickness is increased comparatively and the LVOTO more apparent. The LA remains normal, indicating low risk for complication; however, close follow up is advised.



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The ECG is unusual for a cat, with a significant amount of heart rate variability. Rates as high as 215bpm and as low as 115bpm. No obvious premature beats are seen, and this is suspected to reflect sinus node variability. In the absence of significant structural disease or clinical signs this is likely benign. Consider ruling out causes of high vagal tone, such as GI or neurologic disease (low suspicion in an asymptomatic patient). Monitoring is advised going forward.

Given progression seen here, it is reasonable to institute Atenolol at time as below. Our goal is to block the elevated heart rates while not decreasing the resting rate significantly. If the patient is difficult to medicate, an alternative would be to simple monitor going forward. Discussion with the owner is advised.

Prognosis is guarded long-term.

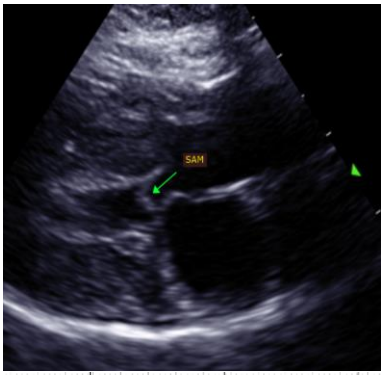
RECOMMENDATIONS

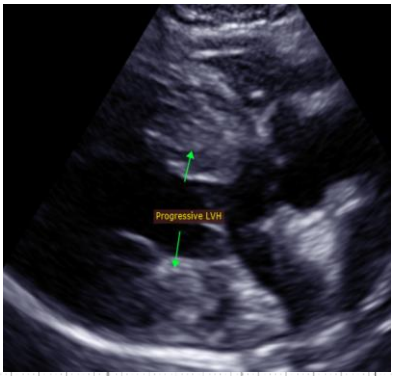
- Continue Atenolol, 25mg tablets, give ¼ tab PO q24h.
- Consider systemic workup as advised due to RSA/sinus node variability.
- Monitor BP and T4 every 6 months.
- Anesthetic risk is considered mild, however judicious IV fluid rates are advised to avoid fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, isoflurane maintenance.
- Risk for complication with steroid use typically follows LA dilation, which in this case is low. That being said, any cat can experience unexpected signs of intolerance and monitoring of RR/RE is advised particularly in the initiation phase.
- Monitor for any clinical evidence of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes, etc.).

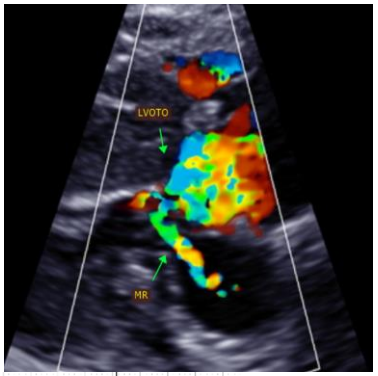
PLAN

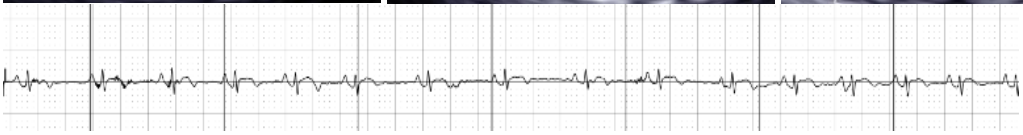
- Recommend recheck echocardiogram in 6 months to screen for progression, sooner if any clinical signs arise in the interim.

IMAGES









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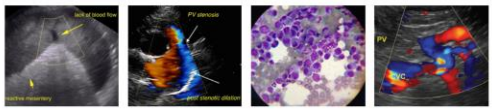

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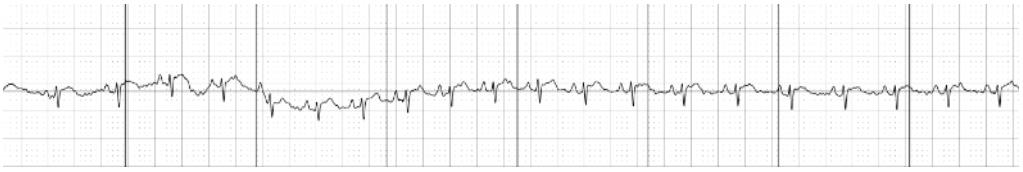

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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