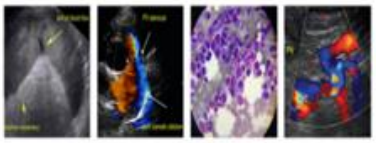
Mass Veterinary Services



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

PATIENT
Grady Smith

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
7 years

WEIGHT
13.19lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
23878

DATE
4/26/22

PRESENTING CLINICAL SIGNS

History: Recheck echo. History HOCM - Atenolol started in February 2018. On prior echo (12/18/20, Tai Casagrande, DVM, DACVIM) there was resolution of SAM, no LVOTO present, and normal chamber sizes. Current presentation: Grady was continued on his atenolol; however, owner has some trouble pilling Grady. Good appetite and activity level. On exam today: arrhythmia, no murmurs noted, PSS, lung fields clear, compressible thorax. BP: 240mmHg x 5. Medications: Atenolol 25mg 1/4 tab daily. *Sedated with propofol for study (ECG done prior to sedation).
-Pertinent previous echo findings: LA 1.41 cm; LA:Ao 1.27; IVS 053 cm; PW 0.62 cm; LVOT 0.96 m/s; normal LA size; no SAM or MR; no LVOTO.

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 140bpm with a largely regular rhythm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. P and QRS morphologies are positive. Isolated VPCs throughout; monomorphic, singles only. 10 in a nearly two-minute tracing. No supraventricular premature beats, pauses or other dysrhythmias observed.
ECG diagnosis: Normal sinus rhythm (rate controlled), 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. The LV wall thicknesses are irregular with regions of borderline hypertrophy. Systolic function is adequate. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles appear hyperechoic. False tendon. The endocardium appears mildly remodeled.
Left atrium: The left atrium is borderline normal. No obvious spontaneous contrast or thrombi seen.
Mitral valve: The mitral valve is normal in structure and mobility. No systolic anterior motion is seen. No MR.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity. No 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 trivial tricuspid regurgitation.
Pulmonic valve/Pulmonary artery: The pulmonic valve is normal in morphology and mobility. Trace pulmonic insufficiency. Normal RVOT velocity; laminar flow. The MPA appears dilated.
Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.

2-Dimensional Measurements

Ao diam (cm)	1.0
LA diam (cm)	1.4
LA:Ao (Swe)	1.4
IVS thickness (cm)	0.46
LVID diastole (cm)	1.66
PW thickness (cm)	0.52
LVID systole (cm)	0.68
FS (%)	59

Doppler Measurements

PV Vmax (m/s)	0.7
AoV Vmax (m/s)	1.0
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

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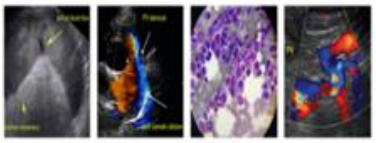

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INTERPRETATION OF THE FINDINGS

The diagnosis of hypertrophic obstructive cardiomyopathy persists with evidence of relative structural stability. Compared to what is available from the prior study, there are similar findings without significant LVH and a borderline LA dimension. Of some concern, the main pulmonary artery appears quite dilated which was not noted previously. In an asymptomatic cat, this is of unknown significance; however, pulmonary hypertension may be brewing. Monitor at home for signs of this development, such as exertional syncope or collapse. No additional structural issues are identified.

Recommend reassess blood pressure given a severely elevated reading in hospital. If persistently elevated, treatment with Amlodpine may be warranted in addition to screening for underlying causes.

Given these findings, continuing Atenolol is certainly recommended as prescribed. The heart rate appears well controlled at 140bpm.

The ECG confirms ventricular premature contractions (VPCs) are present. VPCs can certainly be cardiac in origin with significant structural disease; however, only mild disease is identified here. Extra-cardiac causes should be considered in a 7-year-old cat. If the BP is consistently elevated, this may be enough to explain the phenomenon; however, full systemic evaluation is advised. Given what is seen here, there is no indication for additional anti-arrhythmic therapy at this time. Atenolol is often utilized for VPCs in cats and may actually be an appropriate choice. Close monitoring for any associated clinical signs including collapse or significant lethargy is advised with immediate re-evaluation in these instances. Prognosis is guarded, as in any arrhythmic patient sudden death is certainly a possibility even on medications.

RECOMMENDATIONS

- Continue Atenolol as prescribed.
- Reassess BP and treat/screen if indicated.
- Consider full systemic evaluation as discussed.
- Anesthesia is not advised prior to further evaluation.
- Monitor at home for any respiratory signs or blood clot events (neurologic change, paralysis, etc.) in the future.

PLAN

- Recommend recheck echocardiogram/ECG in 6-12 months to assess for progression, sooner if clinical issues arise.

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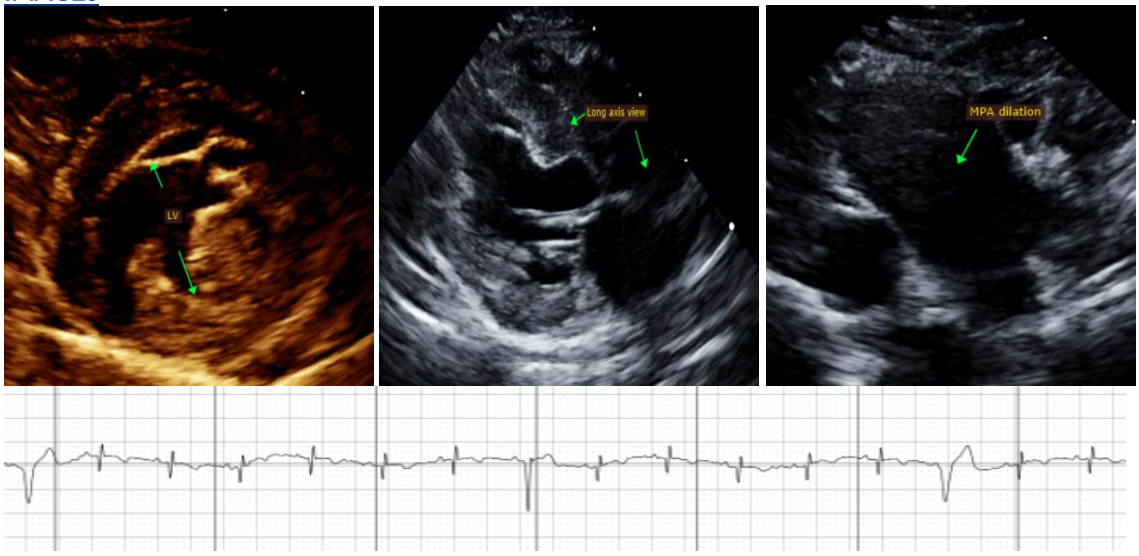

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)