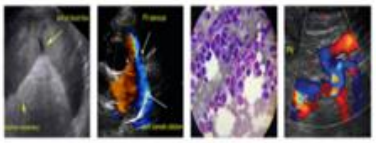
Mass Veterinary Services



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
8 years

WEIGHT
11.81lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
30421

DATE
4/25/23

PRESENTING CLINICAL SIGNS

History: Recheck echo. History HOCM. History isolated VPCs. Presently, Grady is doing well at home. He is eating well with normal activity level. The owner is hoping to get him off atenolol. On exam: arrhythmia, grade III/VI parasternal murmur PSS lung fields clear compressible thorax, mm pink, moist, CRT<2. BP: 90mmHg x 5. Current medications: Atenolol 65mg/ml 0.1ml daily *Sedated with propofol for study.
-Pertinent previous echo findings (4/26/22 MML): LA1.4 cm; LA:Ao 1.4; LV 1.66 cm, borderline normal LA size, irregular LV wall thicknesses, endocardial remodeling, no LVOTO. ECG showed NSR with isolated VPCs

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at 25mm/s; 20mm/mV. The average heart rate is 130bpm with a largely regular rhythm. P for every QRS complex and vice versa. The P wave morphology is positive with a normal dimension. Normal PR. The QRS morphology is inverted. MEA is shifted right. VPCs are seen throughout; monomorphic and primarily singles; however, couplets are appreciated. Occasional R:T phenomenon. No supraventricular premature beats, pauses or other dysrhythmias observed.
ECG diagnosis: Normal sinus rhythm with frequent unstable ventricular arrythmias.

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. A tertiary hypertrophied muscle is appreciated. False tendon. The endocardium appears mildly remodeled.
Left atrium: The left atrium is mildly dilated. No obvious spontaneous contrast or thrombi seen.
Mitral valve: The mitral valve is normal in structure and mobility. No systolic anterior motion is seen. Trace 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)	1.1
LA diam (cm)	1.5
LA:Ao (Swe)	1.4
IVS thickness (cm)	0.45
LVID diastole (cm)	1.2
PW thickness (cm)	0.48
LVID systole (cm)	0.4
FS (%)	66

Doppler Measurements

PV Vmax (m/s)	0.7
AoV Vmax (m/s)	0.9
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

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INTERPRETATION OF THE FINDINGS

Compared to the prior study, the structural findings are similar. No significant LVH is appreciated and the LA is similar to previous. The MPA remains dilated, although no significant change is seen. No additional issues have developed.

The ECG is similar to previous, although there is **evidence of progression in the significance of the arrythmia.** Isolated VPCs were noted previously; however, frequent couplets are seen on this tracing. The patient is heavily sedated (presumably prior to recording the ECG), which can also exacerbate the finding. Recommended reassess in the absence of sedation for a true comparison. If the ventricular activity remains increased with couplets seen, depending on resting sinus rate (independent of sedation) a dose increase in atenolol can be attempted to q12 hours. If ineffective or the resting heart rate will not allow this, changing to Sotalol is recommended.

Prognosis is guarded, as in any arrhythmic patient sudden death is certainly a possibility even on medications.

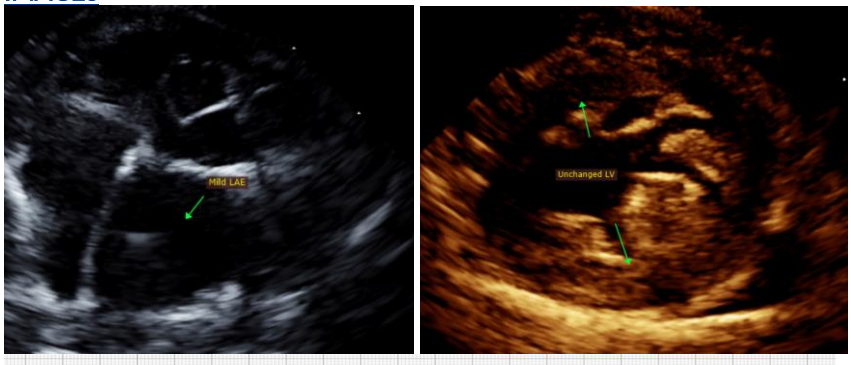
RECOMMENDATIONS

- Continue Atenolol as prescribed.
- Reassess the ECG without sedation onboard. If ventricular arrythmias persist with significant markers of malignancy as is seen here, consider increase atenolol or change to Sotalol compounded liquid 1mg/kg PO q12h in lieu of Atenolol. Reassess an ECG in 1-2 weeks to assess response.
- 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 months to assess for progression, sooner if clinical issues arise.

IMAGES



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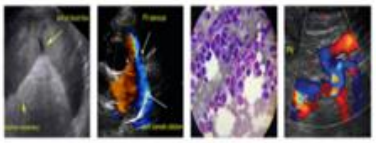

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)