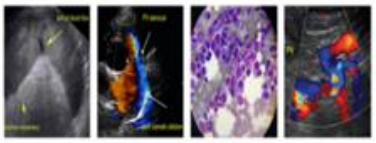
Mass Veterinary Services



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

PATIENT
Joey Beliveau

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
4 years

WEIGHT
12.13lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
26715

DATE
10/5/22

PRESENTING CLINICAL SIGNS

History: Joey was noted to have a heart murmur in April 2021. He is clinically doing well with a normal appetite and activity level. On exam: NSR, grade III/VI parasternal murmur, PSS, lung fields clear, compressible thorax. BP: 100mmHg x5. No medications. *Sedated with propofol for study.

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 asymmetric with a normal free wall and moderate septal hypertrophy. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles appear hyperechoic. The endocardium appears 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. Systolic anterior motion is seen with mild eccentric MR.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Mildly elevated aortic outflow velocities. 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 no tricuspid regurgitation.
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)	0.9
LA diam (cm)	1.1
LA:Ao (Swe)	1.2
IVS thickness (cm)	0.74
LVID diastole (cm)	1.3
PW thickness (cm)	0.57
LVID systole (cm)	0.53
FS (%)	62

Doppler Measurements

PV Vmax (m/s)	0.52
AoV Vmax (m/s)	2.5
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

The diagnosis is hypertrophic obstructive cardiomyopathy. This indicates LV hypertrophy (moderate and asymmetric in this case) with a dynamic LVOT obstruction (SAM) and secondary MR. There is no left atrial dilation, indicating the risk of spontaneous CHF and/or a thrombotic event is low. Going forward a screening BP and T4 are recommended every 6 months, as both can exacerbate disease. No additional issues are identified.

While no medications have been shown to definitively alter long term outcome at this stage of disease, atenolol is often initiated to decrease the outflow obstruction. Given the degree of obstruction and mild LV hypertrophy, recommend initiate at this time as below. If there is difficulty medicating at home, an alternative approach would be closely monitoring for progression in the next 6 months. Discussion with the owner is advised.

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The reported blood pressure is low, which is surprising for a cat in hospital. Assuming this was independent of sedation, reassessment is certainly advised prior to instituting Atenolol. If persistently hypotension, further evaluation may be warranted.

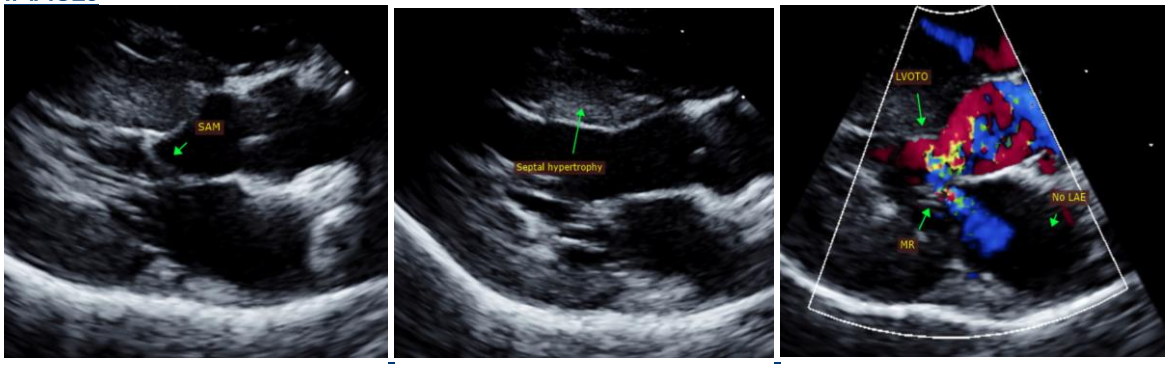
RECOMMENDATIONS

- Reassess BP as discussed.
- If able/elected, administer titrating dose of atenolol if able: 25mg tablets; Give ¼ tab once daily. Recheck heart rate in 1-2 weeks with target stressed rate of 140-160bpm 12-24 hours post-administration. Increase as needed until target reached.
- Monitor BP/T4 q6mo.
- 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). Avoid vasodilators as this may worsen the obstruction. 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 mildly elevated. Monitoring of RR/RE is advised particularly in the initiation phase.
- Monitor at home for any respiratory signs or blood clot events (neurologic change, paralysis, etc.) in the future.

PLAN

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

IMAGES



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)