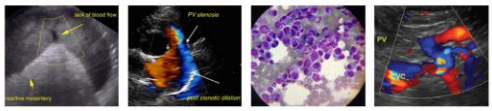
PAUS
Pet Animal Ultrasound Service
4paus.com 781-635-5677



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

PATIENT
Reeses Buchanan

SPECIES
Feline

BREED
DSH

SEX
FS

AGE
10 years

WEIGHT
15lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Wood River Animal Hospital

REFERRING VET
Dr. Schuelke

INVOICE
24086

DATE
5/8/22

PRESENTING CLINICAL SIGNS

History: Presented for recent exam with tachycardia and gallop rhythm. BW, including thyroid, WNL. Radiographs - cardiomegaly; no pulmonary edema. BP: 118 mmHg. *Sedated with butorphanol

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 mild septal thickening and moderate free wall thickening. There is a diffusely hyperechoic endocardium consistent with fibrosis. False tendon. The papillary muscles are mildly hypertrophied and hyperechoic. The endocardium appears remodeled.
Left atrium: The left atrium is mildly dilated. No smoke or thrombi seen.
Mitral valve: The anterior leaflet of the mitral valve appears largely normal. Systolic anterior motion is seen on 2D imaging and color flow imaging. Mild eccentric MR.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Moderately increased aortic outflow velocity with a dynamic profile. 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 trace tricuspid regurgitation.
Pulmonary valve/Pulmonary artery: The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity.
Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.
Heart rhythm: ECG reveals a sinus rhythm with an average HR of 150bpm.

2-Dimensional Measurements

Ao diam (cm)	1.1
LA diam (cm)	1.58
LA:Ao (Swe)	1.5
IVS thickness (cm)	0.61
LVID diastole (cm)	1.5
PW thickness (cm)	0.78
LVID systole (cm)	0.8
FS (%)	48

Doppler Measurements

PV Vmax (m/s)	0.65
AoV Vmax (m/s)	2.8
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

The diagnosis and cause of the murmur is hypertrophic obstructive cardiomyopathy. This indicates some degree of LV thickening (mild to moderate in this case) with a dynamic LVOT obstruction (SAM). There is mild left atrial dilation, indicating the risk for imminent spontaneous CHF and/or a thrombotic event is currently low. No additional issues are identified. Hyperthyroid disease should be ruled out as contributing factors in this normotensive cat.

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. If there is difficulty medicating at home, an alternative approach would be closely monitoring for progression in the next 6 months; however, given degree of the LV hypertrophy and mild

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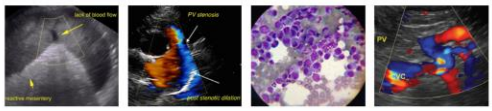

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LA dilation, recommend initiation at this time. Prognosis is guarded due to the highly variable nature of feline subclinical cardiomyopathy.

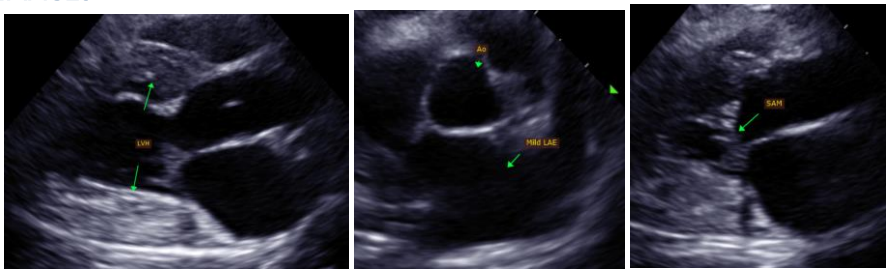
RECOMMENDATIONS

- If able, administer titrating dose of atenolol: 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.
- Screening BP/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). Avoid vasodilators as this may worsen an outflow obstruction (if present). A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, isoflurane maintenance. Additionally steroids should be used with caution on older cats, as even a 'normal' geriatric heart can develop evidence of intolerance and fluid retention.
- 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 assess rate of progression, sooner if any issues arise in the interim.

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. 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)
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