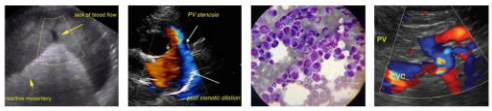
PAUS
Pet Animal Ultrasound Service
4paus.com 781-635-5677



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

PATIENT
Booboo O'Shea

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
14 years

WEIGHT
12.6lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
VCA Palmer Animal Hospital

REFERRING VET
Dr. Hattan

INVOICE
25775

DATE
8/15/22

PRESENTING CLINICAL SIGNS

History: Grade lll/VI systolic murmur. Elevated proBNP (358). No clinical signs. BP: In July - 118, 122, 124 mmHg; Today - 180, 181, 182, 182mmHg. *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 basilar septal thickening and regions of irregularity. There is a mildly hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly hypertrophied and hyperechoic. The endocardium appears mildly remodeled.
Left atrium: The left atrium is normal. No smoke or thrombi seen.
Mitral valve: The MV leaflets appears normal. Systolic anterior motion is seen on 2D and color flow imaging. Mild eccentric MR.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Mildly elevated 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 no tricuspid regurgitation.
Pulmonary 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.
Heart rhythm: ECG reveals a sinus rhythm with an average HR of 220bpm.

2-Dimensional Measurements

Ao diam (cm)	1.1
LA diam (cm)	1.3
LA:Ao (Swe)	1.2
IVS thickness (cm)	0.61
LVID diastole (cm)	1.5
PW thickness (cm)	0.50
LVID systole (cm)	0.6
FS (%)	60

Doppler Measurements

PV Vmax (m/s)	0.70
AoV Vmax (m/s)	2.4
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/focal in this case) with a dynamic LVOT obstruction (SAM). The degree of disease appears mild with mild focal LVH and no left atrial enlargement, indicating the risk for spontaneous CHF and/or a thrombotic event is currently low. 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 mild nature of the findings and lack of a severe obstruction, **this is not yet indicated.**

Prognosis is guarded given the highly variable nature of feline cardiomyopathy.

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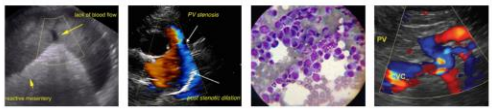

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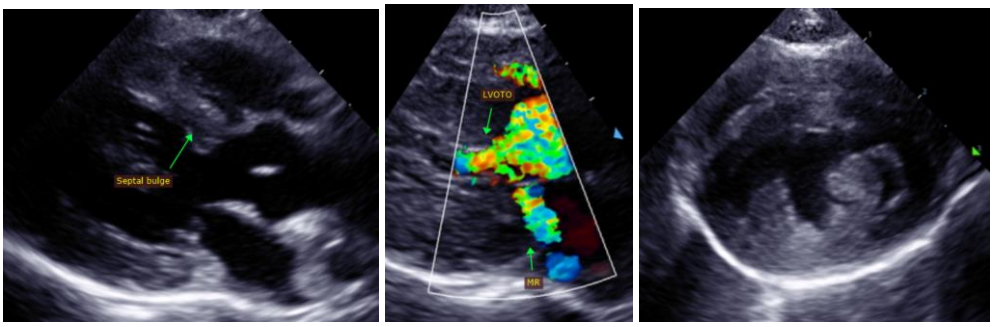
RECOMMENDATIONS

- No medications are clearly warranted.
- 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. 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. 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
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