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Pet Animal Ultrasound Service
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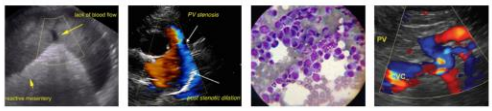

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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PATIENT
Rafa Hogeboom

SPECIES
Feline

BREED
Perisan

SEX
Male Neutered

AGE
3 years

WEIGHT
8.7lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Firehouse Veterinary Clinic

REFERRING VET
Dr. Fleming

INVOICE
27819

DATE
12/5/22

PRESENTING CLINICAL SIGNS

History: Presented to clinic 11/29/2022 for vomiting, diarrhea, and weight loss. Bloodwork normal, fecal negative, Grade II/VI heart murmur, and increased heartrate. No reported respiratory issues. BP: 160, 165, 165mmHg. Current medication: Metronidazole 100mg/ml 0.7mL by mouth once daily for 8 days.

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 marked septal thickening and mild free wall hypertrophy. There is a diffusely hyperechoic endocardium consistent with mild fibrosis. The papillary muscles are hypertrophied and hyperechoic. The endocardium appears remodeled.
Left atrium: The left atrium is marked increased in dimension. Subtle smoke suspected. No obvious thrombi visualized.
Mitral valve: The anterior leaflet of the mitral valve is elongated, consistent with dysplasia. No obvious stenosis. The tip of the mitral valve is visible in the LVOT during systole. Moderate eccentric mitral regurgitation is noted.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Aortic outflow velocities are moderately elevated 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. Mildly elevated RVOT velocity with a dynamic component.
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

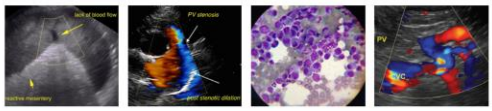
Ao diam (cm)	0.9
LA diam (cm)	2.4
LA:Ao (Swe)	2.6
IVS thickness (cm)	0.80
LVID diastole (cm)	1.46
PW thickness (cm)	0.60
LVID systole (cm)	0.62
FS (%)	58

Doppler Measurements

PV Vmax (m/s)	1.3
AoV Vmax (m/s)	3.5
MR Vmax (m/s)	NM
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

The diagnosis and cause of the murmur is mitral valve dysplasia leading to LV hypertrophy, an obstructive LVOT flow pattern and moderate MR. A primary hypertrophic component cannot be ruled out as a concurrent issue, particular given marked septal hypertrophy. Regardless, there is marked left atrial dilation with evidence of smoke, indicating the risk for progression to spontaneous CHF and/or a thrombotic event is high going forward.



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Long term prognosis is guarded to poor given the severity of the findings. The patient is at high risk for acute decompensation, development of blood clots/arrhythmias, and/or sudden death going forward.

While no medications have been shown to definitively alter long term outcome at this stage of disease (ie prior to clinical signs), cardiac support is recommended as below given the severity of the findings and high risk for complication. Atenolol should be used to decrease the outflow obstruction in addition to an anticoagulant to help decrease the risk of a thrombotic event. Finally, low-dose Lasix may be reasonable given exceedingly high risk for complication. See recommendations below.

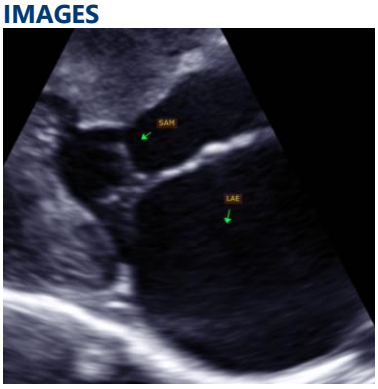
RECOMMENDATIONS

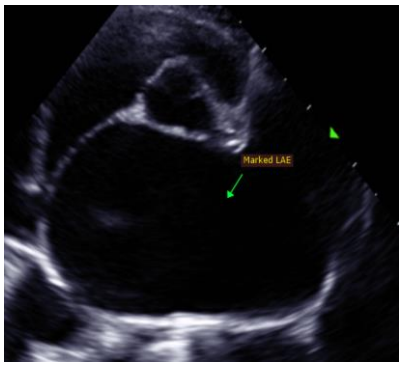
- Administer titrating dose of atenolol: 25mg tablets; Give ¼ tab once daily. Recheck heart rate in 1-2 weeks with target stressed rate of 140-160bpm 12-24 hours post-administration. Increase as needed until target reached.
- Administer Clopidogrel (Plavix) 75mg tabs, give ¼ tab PO q24 h (NOTE: This medication is very bitter along the cut edge and may cause oral foaming).
- Administer low-dose Lasix 1mg/kg PO q12h.
- Elective anesthesia, fluid or steroid therapy is not advised.
- 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 for progression, sooner if clinical signs arise in the interim.

IMAGES





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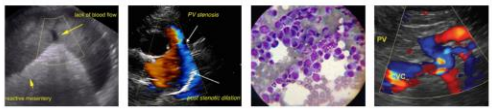

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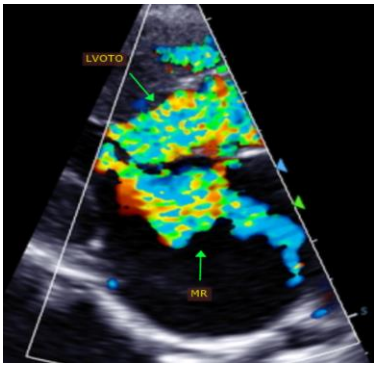

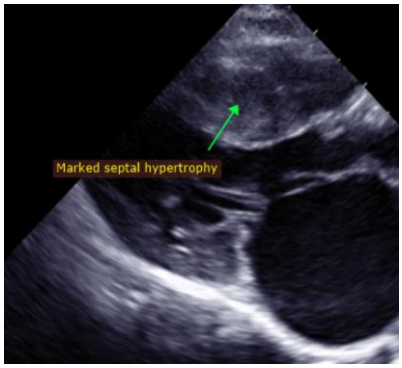

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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