



PATIENT

Blue Frink

SPECIES

Feline

BREED

Siamese

SEX

FS

AGE

3 years

WEIGHT

9.6lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

IMAGING

PERFORMED BY

Pamela Harrigan,
RDCS

HOSPITAL NAME

Mass Veterinary
Services

REFERRING VET

Dr. Masloski

INVOICE

24148

DATE

5/11/22

PRESENTING CLINICAL SIGNS

History: Blue was recently adopted and was noted to have a heart murmur. She has a history of suspected IBD. Good appetite and normal activity level. On exam: Grade IV/VI systolic murmur on sternum. BP: 110-120 mmHg. No medications. *No sedation for study.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.

Left ventricle: The LV diameter is normal with borderline myocardial function. The LV wall thicknesses are mild to moderately increased; asymmetric. There is a diffusely hyperechoic endocardium consistent with mild fibrosis. The papillary muscles are significantly hypertrophied. The endocardium appears mildly remodeled. A perimembranous VSD is seen just below the aortic valve. Complete aneurysmal closure with turbulent flow in the sinuses not crossing the defect.

Left atrium: The left atrium and auricle are high normal in dimension.. No spontaneous contrast or thrombi seen.

Mitral valve: The anterior leaflet of the mitral valve is thickened and elongated. Abnormal anterior motion is seen during systole. Mild eccentric mitral regurgitation.

Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Elevated LVOT outflow velocities 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 170bpm.

2-Dimensional Measurements

Ao diam (cm)	1.0
LA diam (cm)	1.3
LA:Ao (Swe)	1.3
IVS thickness (cm)	0.7
LVID diastole (cm)	1.8
PW thickness (cm)	0.6
LVID systole (cm)	1.1
FS (%)	38

Doppler Measurements

PV Vmax (m/s)	1.2
AoV Vmax (m/s)	2.0
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 mitral valve dysplasia leading to an obstructive LVOT flow pattern and mild MR. A primary hypertrophic component cannot be ruled out as a concurrent issue. There is no significant left atrial dilation, indicating the risk for imminent complication is low however high risk for progression to spontaneous CHF and/or a thrombotic event going forward. As an additional incidental finding, there is a VSD present with complete aneurysmal closure. This indicates that no flow is crossing into the RVOT, making this of little hemodynamic consequence. No additional issues are identified.

Long term prognosis is guarded given the age of the patient and highly variable nature of asymptomatic feline heart disease. Many cats will remain asymptomatic until mid-life or



PATIENT
Bleue Frink

beyond, while others develop CHF within the first years. Close monitoring for progression of LA dilation in the future will help determine long term prognosis.

SPECIES
Feline

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. In cases of solely primary MV dysplasia this can lead to improvement in the degree of obstruction and hypertrophy. Given the young age of the cat and today's findings, highly recommend institution at this time if possible. No additional medications are indicated prior to significant LA dilation.

BREED
Siamese

RECOMMENDATIONS

SEX
FS

- 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.

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- Anesthetic risk is considered mildly elevated, 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.

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- Monitor for any clinical evidence of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes, etc).

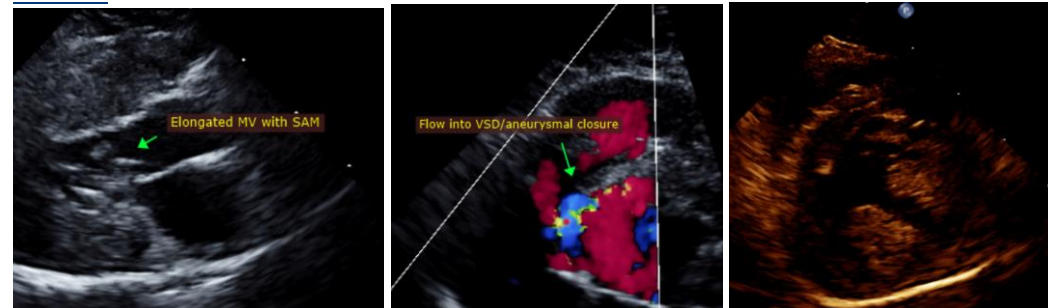
PLAN

- Recommend recheck echocardiogram in six months to assess for progression/regression, sooner if clinical signs arise in the interim.

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IMAGES



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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.

REFERRING VET

Dr. Masloski

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.

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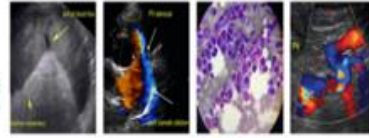
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Maggie Machen Lamy, DVM
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DATE

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Echocardiogram performed by: Pamela Harrigan, RDCS



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Pet Animal Ultrasound Service (4paus.com)

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