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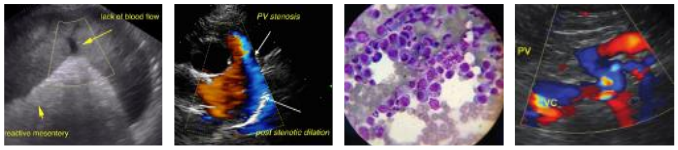

PATIENT
Lily Cullen

SPECIES
Feline

BREED
DLH

SEX
Female Spayed

AGE
3 years

WEIGHT
9.3lbs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Shari Reffi, CVT

HOSPITAL NAME
Millburn Veterinary Hospital

REFERRING VET
Dr. Turowsky

INVOICE
31940

DATE
7/19/23

PRESENTING CLINICAL SIGNS

History: Recheck echo. Grade 3-4/6 heart murmur. Doing well.
-Current medications: Atenolol 5mg SID.
-Pertinent previous echo findings (1/2023 MML): Mild to moderate LVH (0.72/0.68cm), mild to moderate LAE (1.4), SAM with MR.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is mild to moderately increased in dimension. There is a diffusely hyperechoic endocardium consistent with fibrosis and ventricular remodeling. Papillary muscle hypertrophy. The right ventricle is subjectively normal in size and morphology. There is mild left atrial enlargement present. No right atrial enlargement present. Normal RVOT velocity. There is systolic anterior motion (SAM) of the mitral valve is seen with an elevated aortic outflow velocity (dynamic profile). There is mild eccentric mitral regurgitation present secondary to SAM. Normal velocity. No other obvious valvular regurgitation is present. There is no pericardial effusion noted. No pleural effusion appreciated. Tachycardia throughout.

CARDIAC CHART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LVWd (cm) (Moise, Pipers)	FS (%)	EF (%)
NORMAL PARAMETER	------	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	4.1	230	0.67	1.2	0.52	52	90
FELINE CARDIAC PARAMETERS	**LA/AO** (Boon)	**LA/AO HEART BASE (Swe)** (Abbott)	**LA** 2D short axis Base view (cm) (Abbott)		**LVOT VEL** (m/s)	**RVOT VEL** (m/s)	**E max** (m/s)
NORMAL	<1.5	<1.3	<1.2		<1.6	<1.3	<0.9
PATIENT	1.3	1.4	1.35		3.0	0.8	NM

**Note: All measurements based upon multi-modal images and methods. An average value is reported.*
Adapted from June Boon, Veterinary Echocardiography,1998
Abbott J & MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Compared to the prior study, findings are similar. The LV and LA dilation appear stable, although no improvement is identified. The LVOTO is readily apparent with secondary MR. No additional issues have developed.

Given these findings, a dose increase in Atenolol is recommended as needed. The target stressed heart rate is 140-160bpm and this patient is persistently >220bpm. Until the heart rate is well controlled it will be difficult to know if improvement is expected on Atenolol.

Prognosis remains guarded long-term.

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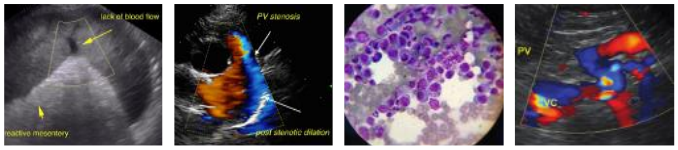

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Anesthetic risk is considered mildly elevated and judicious IV fluid rates are advised to avoid fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid vasodilators as this may worsen the obstruction. A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, and isoflurane maintenance. Risk for complication with steroid use typically follows LA dilation, which in this case is mildly elevated. If needed, monitoring of RR/RE is advised particularly in the initiation phase.

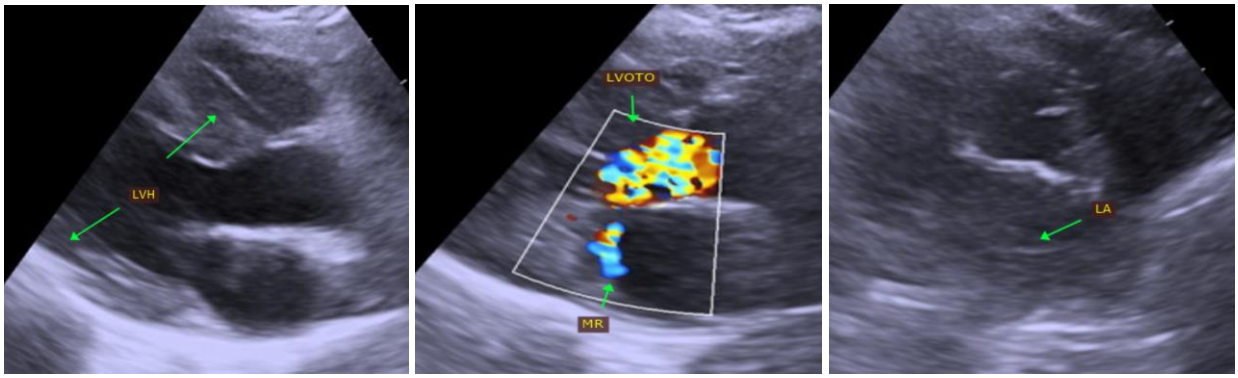
Monitor at home for any respiratory signs or blood clot events (neurologic change, paralysis, etc.) in the future.

PLAN

Screening BP, T4 every 6 months. Increase Atenolol to BID dosing. Reassess heart rate in 1-2 weeks with a target stressed rate of 140-160bpm. Increase as needed.

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
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