IMAGING PERFORMED BY

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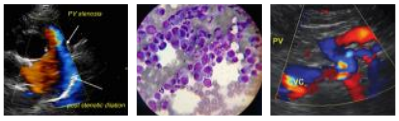

SonoPath
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PATIENT
Diego Bridgett

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
5.30.11

WEIGHT
12.4lbs

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

IMAGING PERFORMED BY
Andi Parkinson, RDMS

HOSPITAL NAME
Timonium Animal Hospital

REFERRING VET
Dr. McMichael

INVOICE
22524

DATE
2.11.22

CLINICAL SIGNS

History: ProBNP: 1500; no clinical signs at home.
-Pertinent abnormal PE/Chem/CBC/UA Results: T4: 2.7, BNP: 1500. Creat: 2, BUN: 32. urine SG: 1.050.
-Sedation used: Not required to complete full diagnostic ultrasound.
-STAT: Not requested.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is asymmetric with mild to moderate hypertrophy and regions of irregularity. There is a diffusely hyperechoic endocardium consistent with fibrosis and ventricular remodeling. Mild papillary muscle hypertrophy. The right ventricle is subjectively normal in size and morphology. Moderate left atrial dilation. No spontaneous contrast. No right atrial enlargement present. Normal RVOT velocity. Systolic anterior motion (SAM) of the mitral valve is suspected although not confirmed on Spectral doppler. There is moderate eccentric mitral regurgitation present presumably secondary to SAM. It is difficult to visualize the mitral valve well and some degree of dysplasia remains a possibility. No other obvious valvular regurgitation is present. There is no pericardial effusion noted. No pleural effusion appreciated. No obvious cardiac tumors.

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	3.5-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	5.6	225	0.67	1.4	0.78	50	78
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	NM	1.6	1.6		2.0	1.3	NM

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

The diagnosis is hypertrophic obstructive cardiomyopathy. This indicates some degree of LV hypertrophy (moderate in this case) with a dynamic LVOT obstruction (SAM) and secondary MR. The valve cannot be well visualized in this study and a primary dysplastic component is a possibility (suspicion is low given the age of the patient). Regardless, there is moderate left atrial dilation present, indicating the risk of spontaneous CHF and/or a thrombotic event may be elevated going forward.

While no medications have been shown to definitively alter long term outcome at this stage of disease, it is reasonable to initiate atenolol at this time as below in light of a significant LVOTO and LA dilation. Plavix is also reasonable; however, this can be difficult to administer. Prognosis is guarded with LA dilation, however there is great variability in rates of progression of subclinical cardiomyopathy. A screening BP and T4 are recommended to assess for complicating factors.

Monitor at home for any respiratory signs or blood clot events (neurologic change, paralysis, etc.) in the future. Anesthetic risk is elevated if needed, 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, isoflurane maintenance.

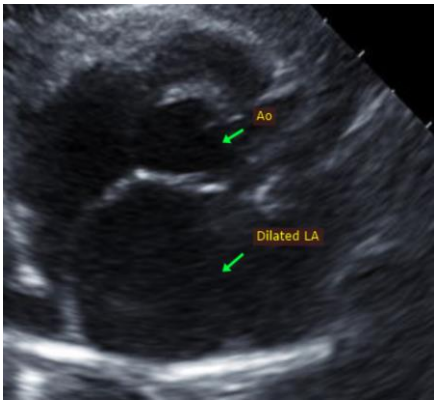
PLAN

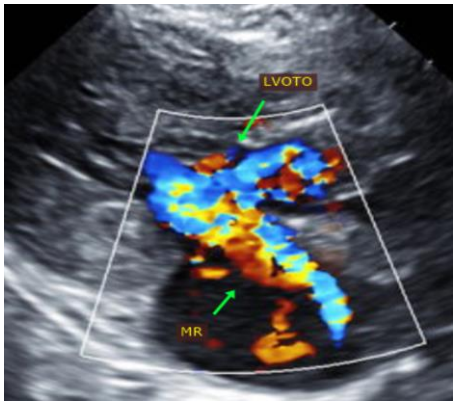
Administer titrating dose of atenolol: 25mg tablets; Give ¼ tab once daily. Recheck heart rate in 1-2 weeks with target stressed rate of 140-160bpm 12-24 hours post-administration. Increase as needed until target reached. Consider blood thinner Clopidogrel (Plavix) 75mg tablets; give ¼ tab orally once daily (NOTE: this medication is very bitter on the cut edges).

Screening blood pressure and T4 are recommended every 4-6 months.

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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