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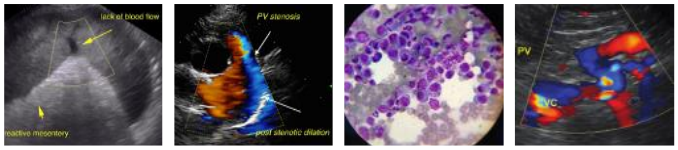


PATIENT
Ozzy Elges

SPECIES
Feline

BREED
DLH

SEX
Male Neutered

AGE
~7 years

WEIGHT
10.6lbs

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

IMAGING PERFORMED BY
Kelly Romero

HOSPITAL NAME
Midtwon Veterinary Medical Center

REFERRING VET
Dr. Walhquist

INVOICE
29504

DATE
3/9/23

PRESENTING CLINICAL SIGNS

History: Recently adopted from a rescue. Two weeks ago, he had a collapse episode and some coughing. He continues to have some sneezing but suspected from incense in the home. Assess prior to dental. Grade IV/VI systolic heart murmur + gallop. Stage 2 renal disease. Pro BNP 300. T4 WNL. BP: 174mmHg. Started on Amlodipine 0.625mg q24h.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is asymmetric with mild septal hypertrophy. There is a diffusely hyperechoic endocardium consistent with fibrosis and ventricular remodeling. Mild papillary muscle remodeling. 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. Systolic anterior motion (SAM) of the mitral valve is suspected, with a borderline elevated dynamic LVOT velocity (suspect under-estimation). Mild to moderate eccentric mitral regurgitation. No TR. No other significant valvular regurgitation is present. There is no pericardial effusion noted. No pleural effusion appreciated. No obvious cardiac tumors.

CARDIAC CHART

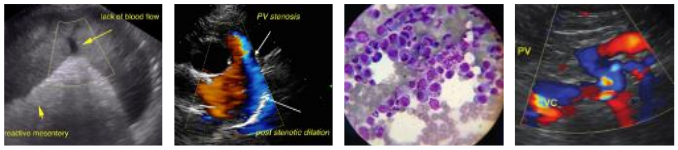
FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LVWd (cm) (Moise, Pipers)	FS (%)	EF (%)
NORMAL PARAMETER	------	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	4.8	NM	0.68	1.4	0.56	68	95
FELINE CARDIAC PARAMETERS	**LA/AO** (Boon)	**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	1.8	1.5	1.48		1.5	0.95	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

The diagnosis is hypertrophic obstructive cardiomyopathy (HOCM). This indicates LV thickening (mild and focal in this case) with a dynamic LVOT obstruction (SAM) as the cause of the heart murmur. The degree of disease is mild, with mild LVH, a minimal obstruction and only mild left atrial enlargement. This indicates the risk of 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. If the patient is easily medicated, it is reasonable to initiate at this time as below. If there is difficulty medicating at home, an alternative approach in this senior cat would be closely monitoring for progression in the next 6-12 months. Discussion with the owner is advised. No additional medications are indicated prior to significant atrial dilation.



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More historical information regarding the collapse episode is necessary to determine potential underlying causes. If occurring with exertion/heart rate stimulation, this may be related to the LVOTO, and use of Atenolol may improve/decrease frequency. Otherwise, they are unlikely to be cardiac in origin and neurologic and/or systemic issues should be considered. Along that same vein, the cough is unlikely to be cardiogenic in origin and further respiratory evaluation is recommended.

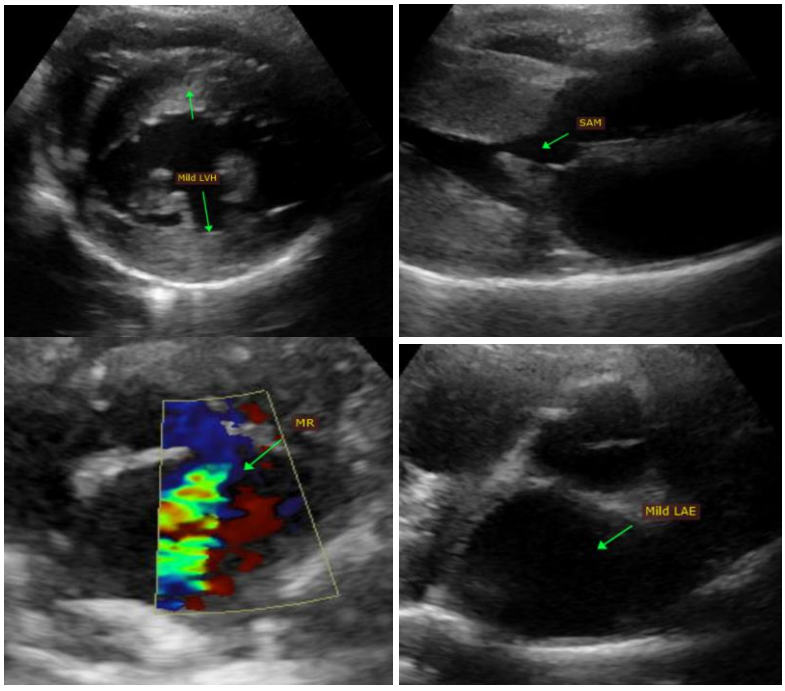
Monitor at home for any respiratory signs or blood clot events (neurologic change, paralysis, etc.). Anesthetic risk is considered mild, however judicious IV fluid rates are advised to avoid fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (ketamine, glycopyrrolate, atropine).

PLAN

Baseline BP and T4 recommended every 6mo. Full historical/systemic evaluation to further investigate episode. If elected, 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.

Recommend recheck echocardiogram in 6 months to assess for progression, sooner if clinical issues arise.

IMAGES



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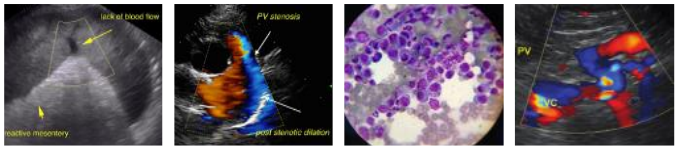

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
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