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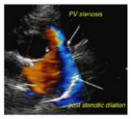
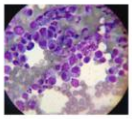
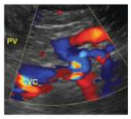
SVS IMAGING

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT
Lulu Easley

SPECIES
Feline

BREED
DSH

SEX
Female Spayed

AGE
3.7 years

WEIGHT
6.8lbs

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

IMAGING PERFORMED BY
Rachel Runnells, RVT

HOSPITAL NAME
SVS Imaging KC

REFERRING VET
Dr. Renfro

INVOICE
24439

DATE
5/26/22

PRESENTING CLINICAL SIGNS

History: Walking drunk and not wanting to stand, diagnosed with hypertension and retinal degeneration at Eye Care in April and put on Amlodipine 1.25mg SID. Just started on clopidogrel 75mg 1/4 t SID.
-Abnormal PE/Chem/CBC/UA Results: Ataxic, increased BP, PLR is normal, not painful, BW showed: Low potassium and elevated ALT.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is mildly hypertrophied. There is a mildly hyperechoic endocardium consistent with fibrosis and ventricular remodeling. Mild papillary muscle hypertrophy. The right ventricle is subjectively normal in size and morphology. There is no left atrial enlargement present. No right atrial enlargement present. The RVOT velocity is elevated with a dynamic profile. There is no systolic anterior motion (SAM) of the mitral valve present, with a normal LVOT velocity. Trace mitral regurgitation present. Trace TR. Trace PI. No obvious pulmonic stenosis. There is no pericardial or pleural effusion appreciated. No tumors seen.

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	3.1	230	0.64	1.3	0.62	67	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	1.6	1.5	1.2		1.8	3.0	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

Hypertrophic cardiomyopathy (HCM) is a rule out diagnosis once a patient is deemed normotensive and euthyroid. In a young cat with reported systemic hypertension, this may be the simple explanation of all findings. Follow up is advised pending response to Amlodipine going forward. Regardless, no LA dilation is identified indicating the risk for complication is low at this time. No murmur is mentioned in the history; however, there is a dynamic RVOT obstruction identified. This commonly causes flow murmurs in cats, particularly with volume or heart rate changes. Tachycardia is noted throughout the study, which is the likely underlying cause. Trace MR and TR are hemodynamically insignificant, and no additional issues are identified.

These findings would suggest that the current clinical issues are noncardiac in origin. A clot is considered unlikely, although a vascular event should be considered depending on degree of blood pressure elevation. No obvious indication for Plavix from a cardiac standpoint; however,

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this may be reasonable if there is concern for a noncardiogenic thrombus. Consider referral in this complicated case, particularly given the young age of the patient.

No medications are indicated prior to significant atrial dilation. It is important to note that no medications have been shown to definitively alter long term outcome at this stage, particularly in the absence of SAM. Prognosis is guarded long term, given the highly variable rates of progression with subclinical cardiomyopathy.

Monitor at home for any respiratory issues or signs of blood clot events (neurologic change, paralysis, etc.).

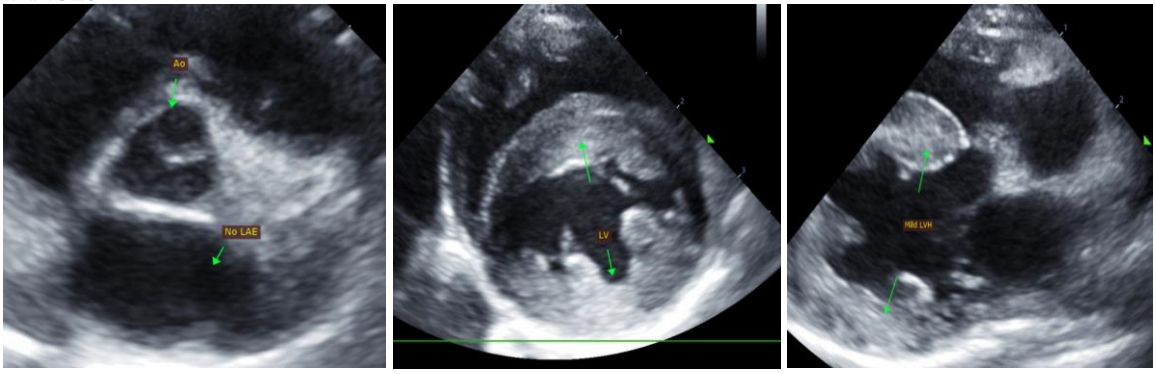
Anesthetic risk is considered mild, however judicious fluid administration is advised if needed with careful RR/RE monitoring to screen for fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Risk for complication with 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.

PLAN

Continued workup/treatment for SHT is recommended, depending on current levels. Consultation or referral to an IM Specialist may be beneficial in this case. Monitor blood pressure and T4 every 6 months lifelong once controlled.

A recheck echocardiogram is recommended in 6 months to assess for progression, sooner if any issues arise in the interim.

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. 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