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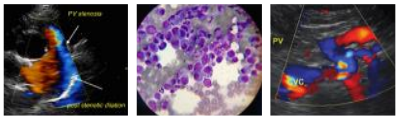

SonoPath
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PATIENT
Harrison Bell

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
12.6.10

WEIGHT
15.5lbs

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

HOSPITAL NAME
DocSide Veterinary Medical Center

REFERRING VET
Dr. Tierney

INVOICE
27150

DATE
10.27.22

PRESENTING CLINICAL SIGNS

History: Notable weight loss over a few months, increased thirst. Ran labs- difficult to hear heart rate due to purring, once auscultated very obvious gallop rhythm. No murmur noted. Recently diagnosed thyroid disease and prepping for I-131 treatment.
-Pertinent abnormal PE/Chem/CBC/UA Results: AST 104, ALT 725, ALKP 134, BUN/Creat 60, MAGN 2.6, Sodium 163, CPK 1348, Absolute Neutrophils 10349, T4 11.8.
-Current medications: Started Methimazole 2.5mg BID 10/22, Gabapentin, Convenia for dental disease.
-Sedation used: Not required to complete full diagnostic ultrasound.
-Pertinent previous ultrasound results: No previous.
-STAT: Not requested.
-Imaging performed by: Stephanie Warga RDCS, RVT.

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental information only.

Cardiomegaly. No obvious evidence of CHF.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is mildly thickened. There is a diffusely hyperechoic endocardium consistent with fibrosis. Mild asymmetric papillary muscle hypertrophy and fibrosis. The right ventricle is subjectively normal in size and morphology. There is no left atrial enlargement present. No right atrial enlargement present. Normal RVOT velocity. No TR. Normal LVOT velocity. There is no obvious systolic anterior motion (SAM) of the mitral valve present. No MR. 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	7.0	NM	0.66	1.6	0.65	53	87
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	1.3	1.3		1.5	0.8	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

Hypertrophic cardiomyopathy (HCM) is a rule out diagnosis once a patient is deemed normotensive and euthyroid. Given that the patient is recently diagnosed with hyperthyroid, these changes may be secondary and resolve with adequate control. Follow up is advised going forward. Hypertension should certainly be ruled out as an additional contributing factor. Regardless, the degree of disease is mild, with only mild asymmetric LVH and no LA dilation. This would indicate the risk for clinical issues is low at this time. No additional issues are identified.

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. In select cases, Atenolol is utilized while the thyroid is being controlled; however, given a lack of left atrial enlargement and medications that have already been instituted, this is likely unnecessary. The safest approach to I-131 therapy would be to stabilize the thyroid using oral medications for 6 months and reassess the cardiac structure. As long as no progression is seen, it would be reasonable to proceed.

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

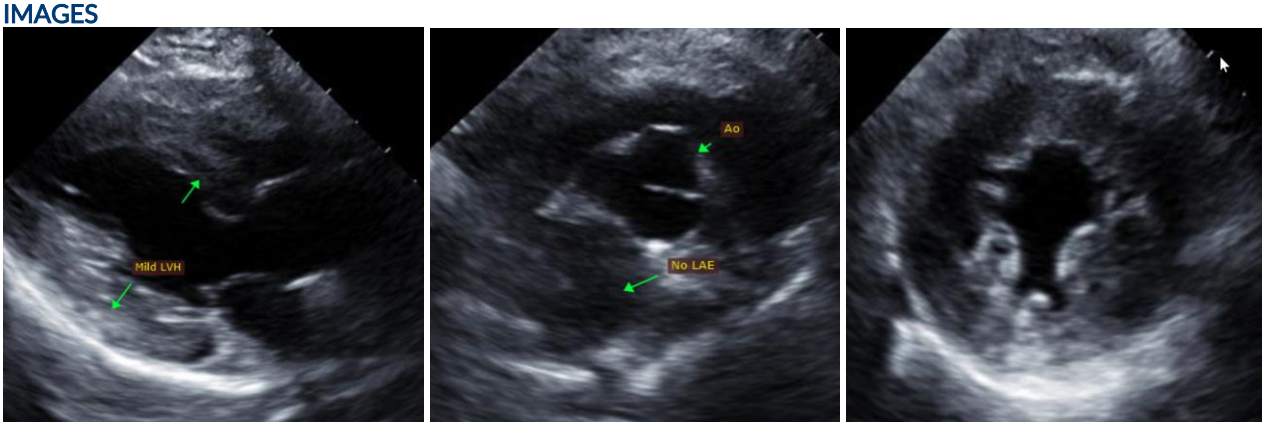
Anesthetic risk is considered mild, however judicious fluid administration is advised if needed with careful RR/RE monitoring to screen for fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Risk for complication with 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. Risk for steroid intolerance follows LA dilation which in this case is low. That being said, any cat can experience acute intolerance and monitoring of breathing rates at home is advised. Given that the patient has been on steroids long-term, there is likely no contraindication.

PLAN

A screening blood pressure and T4 every 6 months lifelong.

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. 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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