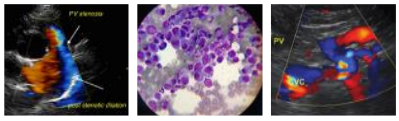
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Coco McKeithen

SPECIES

Feline

BREED

DLH

SEX

FS

AGE

17y

WEIGHT

8.5lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

HOSPITAL NAME

Stevenson Village VH

REFERRING VET

Dr. Rathburn

INVOICE

20850

DATE

9/1/21

PRESENTING CLINICAL SIGNS

History: Presented for PE on 8/26/21 for urinating and defecating outside of the litter box and for slight muscle loss. O reported that P had been diagnosed with hyperthyroidism at previous veterinarian (no records at time of exam), but that they had discontinued treatment over 1.5 years ago. On PE, no overt thyroid slip was noted, but a gallop rhythm with grade II/VI parasternal systolic murmur was auscultated (lungs eupneic and pulses were strong and synchronous). Plan to have blood pressure assessed the morning of the echocardiogram.
Pertinent abnormal PE/Chem/CBC/UA Results: 8/26/21 CBC/Chem/Lytes/TT4/UA/proBNP: mild anemia present with 1.7 mg/dL creatinine, azotemia. (BUN: 54 - chronic based on BW from previous clinic), SDMA: 15 ug/dL, 2.3 ug/dL TT4 and 584 pmol/L proBNP. Following the exam, records were able to be collected from previous clinic showing prior TT4 analysis ranging from 1.7-2.5 and free T4 being at 30.6 pmol/L (10-50) on 7/12/2019.
Current medications: No current medications.
Sedation used: Midazolam and Torbugesic were given IM prior to Sonographer arrival.
Pertinent previous ultrasound results: No previous IntraPet scans.
STAT: Not requested.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is mildly increased in dimension. There is a diffusely hyperechoic endocardium consistent with fibrosis. Mild symmetric papillary muscle hypertrophy and 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. No TR. Normal LVOT velocity. There is no obvious systolic anterior motion (SAM) of the mitral valve present. Mild to moderate eccentric MR. Mild to moderate AI. 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	3.9	200	0.64	1.3	0.64	47	82
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	1.4		0.9	0.61	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. Both should be ruled out in this case as contributing factors particularly given the history the murmur is due to mild to moderate mitral regurgitation which may lead to further volume overload. The degree of disease is mild, with only mild LVH and mild LA dilation. This would indicate the risk for clinical issues is low at this time. A significant aortic leak is identified which may also reflect systemic hypertension. 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. Prognosis is guarded long term, given the highly variable rates of progression with subclinical cardiomyopathy.

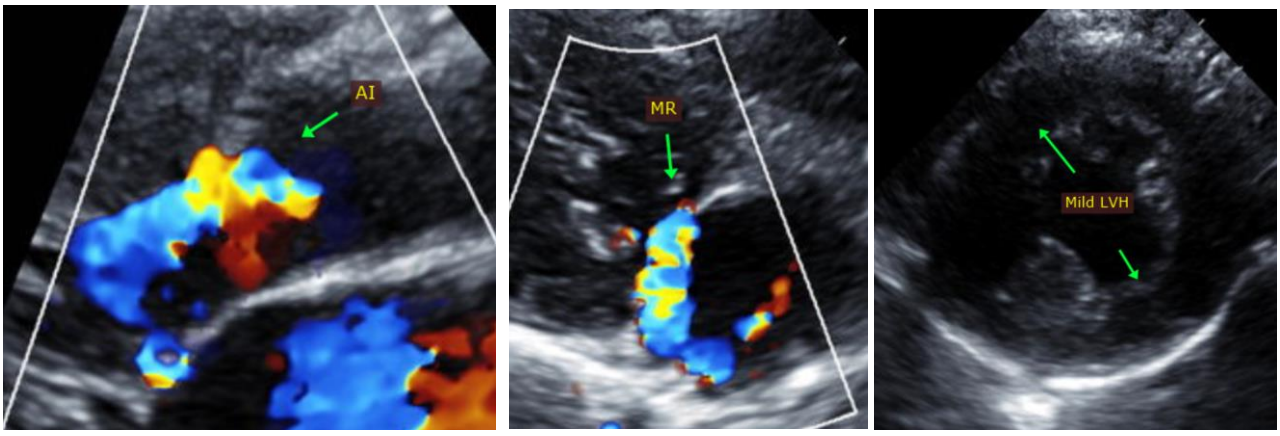
Monitor at home for any respiratory issues or signs of blood clot events (neurologic change, paralysis, etc).

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: A screening blood pressure and T4 are recommended 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
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
Email: info@sonopath.com