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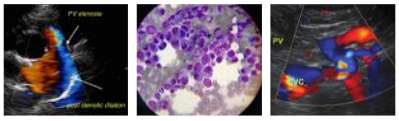

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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PATIENT
Zola An

SPECIES
Feline

BREED
DSH

SEX
Female Spayed

AGE
12.26.07

WEIGHT
8.95lbs

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

IMAGING PERFORMED BY
Stephanie Pearce, RDCS, RVT

HOSPITAL NAME
Cat Hospital at Towson

REFERRING VET
Dr. Brunt

INVOICE
22616

DATE
2.16.22

PRESENTING CLINICAL SIGNS

History: History of elevated ProBNP, renal disease stage 3 12/29/2020, hyperthyroidism 03/24/2021, Cardiac arrhythmia, weight loss 02/09/2022.
-Pertinent abnormal PE/Chem/CBC/UA Results: BUN: 66, Creat: 3.4, T4: WNL, remainder NSF.
-Current medications: Adequan inj 0.2mL 1/wk, Gabapentin 50mg PO SID-BID for pain, 100mg SID for travel, Methimazole 2.5mg transdermal BID.
-Sedation used: Not required to complete full diagnostic ultrasound.
-Pertinent previous ultrasound results: No previous IntraPet scans.
-STAT: Not requested

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at both 25 and 50mm/s; 2mm/mV. The average heart rate is 188bpm with a regular rhythm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P wave morphology is positive with a normal dimension. Normal PR. The QRS is inverted. MEA is shifted right. No ectopic beats, pauses or dysrhythmias observed.
ECG diagnosis: Normal sinus tachycardia. Right axis deviation.

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. No MR. Trace aortic insufficiency. 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	4.1	190	0.6	1.2	0.62	41	76
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	1.49	1.4		0.9	1.2	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. In this reportedly euthyroid cat, hypertension should certainly be ruled out. This cat is predisposed to high blood pressure and there is also a small aortic leak, making this of increased suspicion. Regardless, 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. No additional issues are identified.

The ECG shows a normal sinus rhythm, without obvious arrhythmias. A right axis shift is benign and common in older cats. If these findings do not reflect what was ausculted on exam (i.e., premature beats), a longer recording or potentially a holter monitor may be necessary.

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.

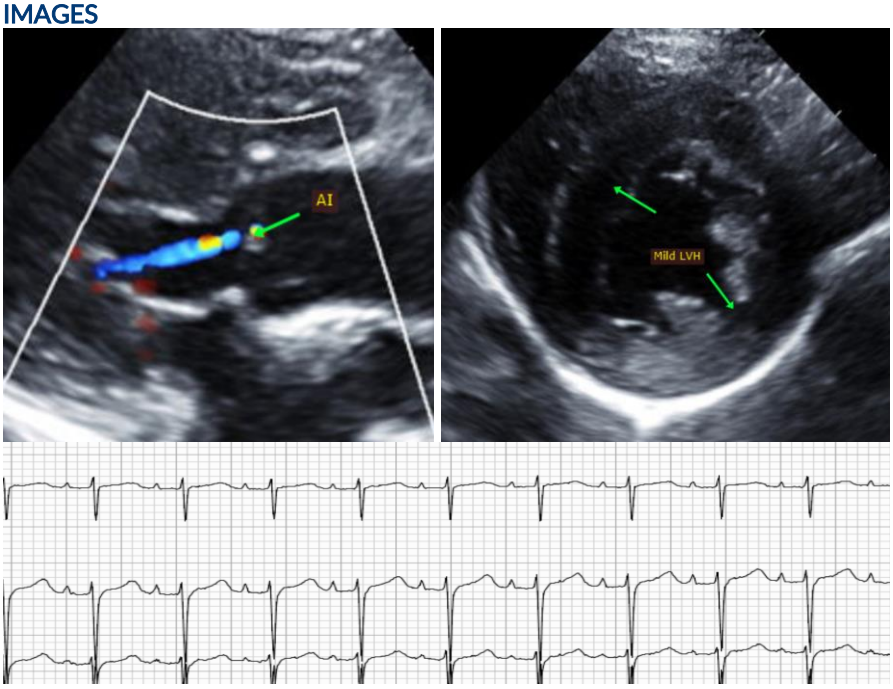
Monitor at home for any respiratory issues or signs of blood clot events (neurologic change, paralysis, etc.). Anesthetic risk is considered mild, however judicious fluid administration is advised if needed with careful RR/RE monitoring to screen for fluid overload. Additionally, drugs that stimulate 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 is recommended. Monitor BP and T4 every 6 months.

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)

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