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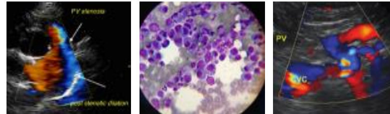

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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PATIENT
Bailey Alexander

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
5.17.10

WEIGHT
12.75lbs

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

HOSPITAL NAME
Cat Sense Feline Hospital

REFERRING VET
Dr. Sinclair

INVOICE
31491

DATE
6.22.23

PRESENTING CLINICAL SIGNS

History: Grade 1/6 and he initially was bradycardic at 128bpm. He also had a mild arrhythmia. His HR did go up to 176bpm after he was radiographed (abdominal) but the arrhythmia persisted. His BNP was elevated at 459. He had also lost 0.75lbs since March 2023.
-Pertinent abnormal PE/Chem/CBC/UA Results: BNP 459.
-Current medications: None currently.
-Blood pressure: 144mmHg.
-Sedation used: Patient sedated with Torbugesic.
-Pertinent previous ultrasound results: No previous.
-STAT: Not requested
-Imaging performed by: Andi Parkinson, BS, RDMS.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at both 25 and 50mm/s; 5mm/mV. The average heart rate is 160bpm with a largely 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 morphology is positive with normal dimension. MEA is normal. No ectopic beats, pauses or dysrhythmias observed.
ECG diagnosis: Normal sinus rhythm.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is irregular with regions of thinning contrasting regions of borderline hypertrophy. Adequate systolic function. No LV dilation. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are remodeled and mildly enlarged. The mitral valve is normal with no obvious MR. The left atrium is mild to moderately dilated and bulbous in appearance. No obvious smoke. The right atrium is normal. Tricuspid valve is normal with no TR. The right ventricle appears normal. Blood flow through both the LVOT and RVOT is normal in velocity. Trace AI. No pericardial effusion seen. No pleural effusion. 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	5.8	170	0.60	1.66	0.38	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	1.5	1.6		1.0	1.1	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

The finding of left atrial enlargement in the face of an irregular LV wall thickening may be consistent with end-stage hypertrophic cardiomyopathy; however, an unclassified cardiomyopathy (UCM), is also possible with only mild LV changes. Mild to moderate left atrial dilation is present, suggesting risk for complication going forward. No additional issues are identified. No cause of the murmur is identified in this study, making it likely physiologic in origin.

The ECG is normal with a normal sinus rhythm. Periods of bradycardia are noted upon exam, which may reflect high vagal tone secondary to systemic illness.

Regardless of categorical classification, the finding of left atrial dilation confers risk for progression in the future and medications should be considered even without symptoms. Close monitoring of RR/RE is advised at home. Pimobendan can be considered if the patient is easily medicated. Additionally, Plavix may be reasonable given atrial dilation to help decrease the risk of a blood clot event in the future. In an asymptomatic cat, if there is difficulty or reluctance to medicate at home it is reasonable to simply monitor going forward.

The long-term prognosis given the totality of the findings is guarded; however, there is a highly variable rate of progression in cats with subclinical disease. There will always remain risk for progression to CHF and development of blood clots and/or sudden death in the future.

Monitoring is certainly advised, particularly should any respiratory signs, collapse or significant lethargy be noted in the future.

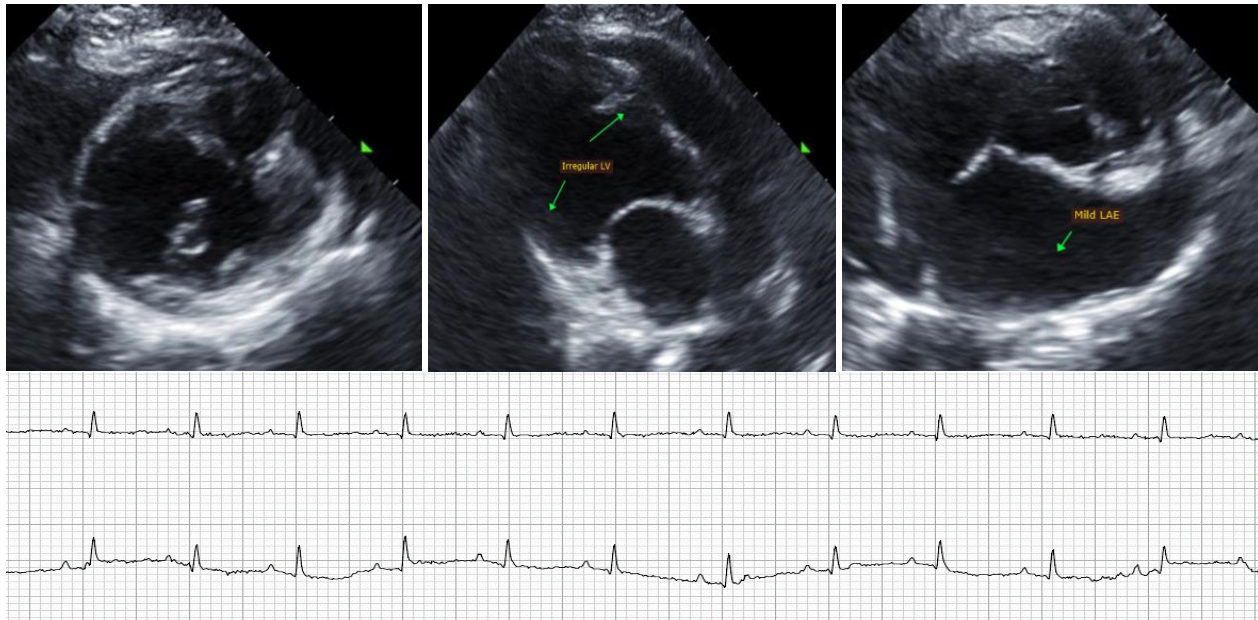
Anesthetic risk is considered mild if needed. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Mild IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

PLAN

Screening BP and T4 are recommended every 6 months. If elect to medicate, oral medications are as follows: Institute blood thinner Clopidogrel (Plavix) 75mg tablets; give ¼ tab orally once daily (NOTE: this medication is very bitter on the cut edges). Institute off label Pimobendan 1.25mg PO q12h.

A recheck echocardiogram is recommended in 6 months to assess progression.

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.

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