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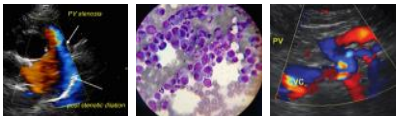

SonoPath
Clinical Sonography & Telecytology
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PATIENT
Coleson Neddo

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
7.25.11

WEIGHT
12lbs

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

HOSPITAL NAME
White Marsh Animal Hospital

REFERRING VET
Dr. Brennan

INVOICE
29127

DATE
2.21.23

PRESENTING CLINICAL SIGNS

History: History of hyperthyroidism. Elevated ProBNP. Tachycardia with gallop arrhythmia. Assess prior to anesthesia.
-Pertinent abnormal PE/Chem/CBC/UA Results: NSF. ProBNP: 1500.
-Current medications: Methimazole 5mg ½ SID.
-Sedation used: Not required to complete full diagnostic ultrasound.
-Pertinent previous ultrasound results: No previous.
-STAT: Approved/Requested.
-Imaging performed by: Stephanie Warga RDCS, RVT.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at both 25 and 50mm/s; 5mm/mV. The average heart rate is 188bpm 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 tachycardia.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is asymmetric with severe free wall thickening and a normal septum. There is a diffusely hyperechoic endocardium consistent with fibrosis. Symmetric papillary muscle hypertrophy. There is severe left atrial enlargement present. Subtle smoke suspected; no obvious blood clots. The LV is mildly depressed. Mild RA dilation. The RV is unremarkable. There is no obvious systolic anterior motion (SAM) of the mitral valve present, with a normal LVOT velocity. There is trace mitral regurgitation present. Trace TR. No other obvious valvular regurgitation is present. The MPA and branches are normal. 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	5.4	NM	0.52	1.57	0.81	34	67
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	2.4	2.1		1.0	0.93	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 for LV hypertrophy once a patient is confirmed euthyroid and normotensive. Given that the T4 is normal in this case, this is unlikely to be related to hyperthyroidism. A baseline blood pressure is certainly recommended. Regardless, there is severe left atrial enlargement with spontaneous contrast, indicating high risk for spontaneous CHF and/or blood clot events going forward. The LV function is mildly depressed as well, which may suggest end-stage disease, The right heart is also mildly affected. No additional issues are identified. The ECG is unremarkable with a normal sinus tachycardia.

Given these findings and exceedingly high risk for decompensation, recommend full cardiac support as below including low dose Lasix therapy even without respiratory signs. Monitoring of sleeping breathing rates at home is recommended as the best way to screen for recurrent CHF at home.

Prognosis is guarded to poor long-term with high risk for CHF, blood clot events and/or sudden death going forward.

Elective anesthesia, fluid or steroid therapy should be avoided in this patient due to high risk complication.

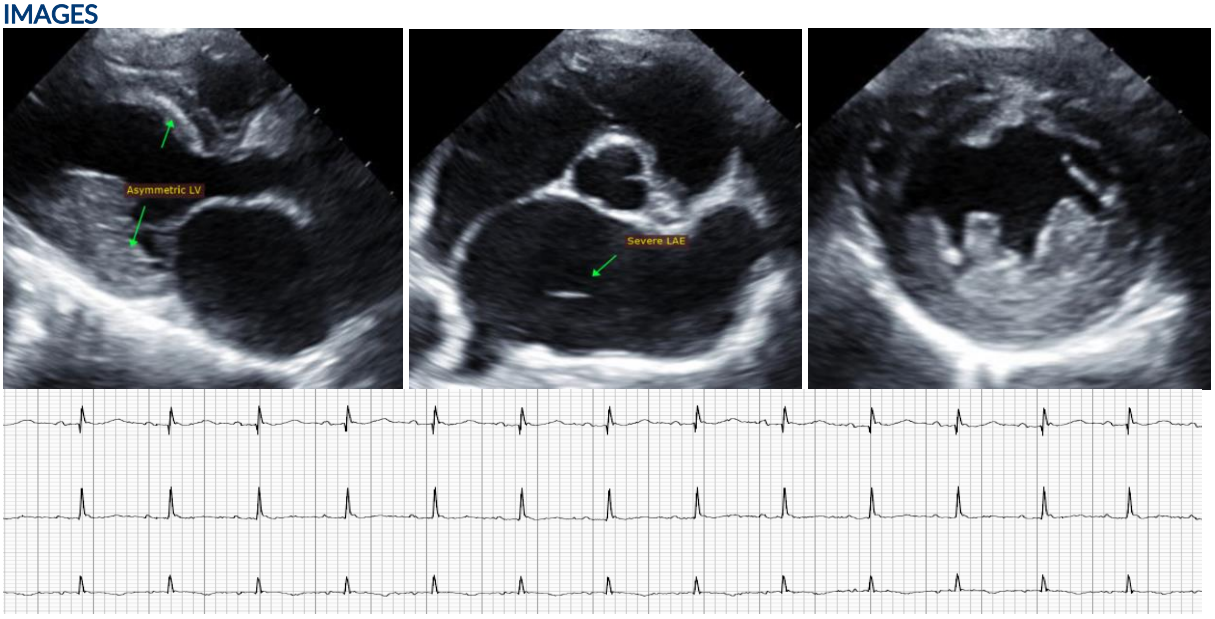
PLAN

Administer Lasix 1mg/kg PO q12h. Administer Plavix to decrease risk of thrombi formation: Plavix 75mg ¼ tab SID (NOTE: bitter on cut edge, coat in entirety or administer in a gel cap). Administer Pimobendan 1.25mg PO q12h. Baseline BP is recommended every 6 months.

Monitor BP and kidney values in 1-2 weeks, then every 4-6 months lifelong. If BP >130mmHg and patient is eating well at home and able to be medicated, consider addition of an ACEI 0.5mg/kg PO q12h.

A recheck echocardiogram is recommended in 6 months to assess for progression, sooner if clinical signs arise.

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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