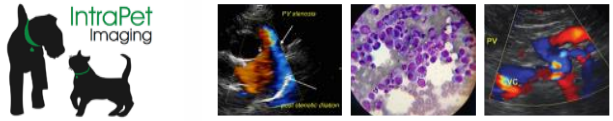
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT
Raiden Copeland

SPECIES
Feline

BREED
Main Coon

SEX
Male Neutered

AGE
3.24.08

WEIGHT
10lbs

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

HOSPITAL NAME
Everhart Veterinary Hospital

REFERRING VET
Dr. Rubinstein

INVOICE
23434

DATE
4.4.22

PRESENTING CLINICAL SIGNS

History: Presented for wellness, doing well at home. Newly diagnosed intermittent heart murmur heard on exam. ProBNP run and results abnormal. Bloodwork WNL.
-Current medications: None.
-Blood pressure: 100mmHg.
-Sedation used: Not required to complete full diagnostic ultrasound.
-Pertinent previous ultrasound results: No previous.
-STAT: **Declined.**
-Imaging performed by: Stephanie Pearce RDCS, RVT.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is normal in largely dimension with regions of borderline hypertrophy. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are remodeled and hypertrophied. The LV is not dilated with borderline systolic function. The left atrium is markedly dilated and bulbous in appearance with significant spontaneous contrast (smoke) seen within the body and auricle. The right atrium is normal. Collapse of the RA wall suggesting early tamponade. The right ventricle is normal. The mitral valve is normal in structure and mobility. Mild central MR. Blood flow through both the LVOT and RVOT is decreased in velocity. Trace TR. Large volume pericardial effusion seen. No pleural effusion seen. 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	4.5	NM	0.50	1.5	0.50	36	69
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	2.3	2.5		0.6	0.5	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 marked LA dilation in the face of normal/borderline LV wall thickness is most consistent with Unclassified Cardiomyopathy (UCM); however, end-stage HCM or some prior infectious or inflammatory insult to the myocardium cannot be definitively ruled out. There is no significant LV wall hypertrophy ruling out typical hypertrophic disease. More importantly, there is marked LA dilation with significant smoke suggesting high risk for both CHF and a thrombotic event.

Regardless of categorical classification the finding of large volume pericardial effusion is highly concerning for congestive heart failure. Additionally, significant smoke is seen within the chamber, further increasing the risk for a thromboembolic event going forward. Immediate lifelong medications are warranted as below including diuretic therapy and off-label use of Pimobendan. **What is highly unusual is there is evidence of early tamponade in this patient with collapse of the RA wall. Should the patient develop any clinical signs going forward, a pericardiocentesis will become imminently necessary. The owner should be warned to monitor for respiratory distress, collapse or acute lethargy and immediate reevaluation to an emergency clinic is recommended in that instance.**

Even if the patient is able to be stabilized, the mean survival time for cats once CHF develops is 8-12 months; however, most are able to maintain a good quality of life on medications. There will always remain risk for recurrent CHF, development of blood clots, and/or malignant arrhythmias/sudden death in the future. Monitoring of sleeping breathing rates at home is recommended as the best way to screen for recurrent/impending CHF at home.

Elective anesthesia, fluid or steroid therapy is not advised.

PLAN

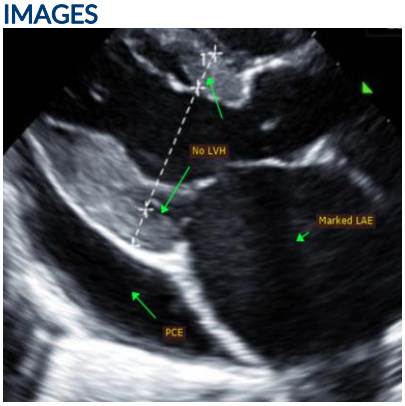
Institute diuretic Lasix 1-2mg/kg PO q12h. If able, institute blood thinner Clopidogrel (Plavix) 75mg tablets; give ¼ tab orally once daily (NOTE: this medication is very bitter on the cut edges). Institute Pimobendan 1.25mg PO BID.

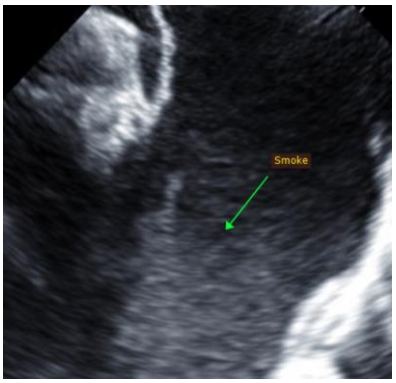
If acute clinical changes are noted at home, immediate presentation to an emergency facility is recommended to assess need for pericardiocentesis.

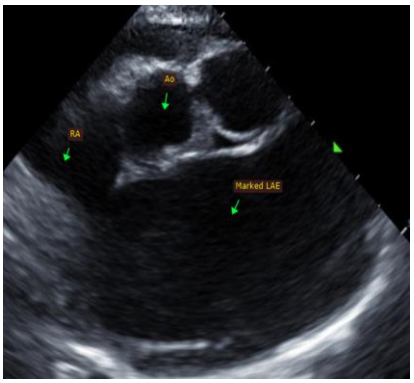
Recheck renal values, BP and ideally effusion status in 10-14 days to ensure tolerance of medications, then every 3-4 months lifelong. If normotensive and eating well, consider addition of an ACEI at that time (if any question or difficult to medicate, do not utilize).

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.

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com