



## PATIENT

Kaimana Morton

## SPECIES

Feline

## BREED

Highland Lynx

## SEX

Male Neutered

## AGE

4 years

## WEIGHT

15.4lbs

## INTERPRETED BY

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

## IMAGING PERFORMED BY

Kelly Romero, DVM

## HOSPITAL NAME

FC Veterinary  
Emergency Hospital

## REFERRING VET

Dr. Romero

## INVOICE

26278

## DATE

9/8/22

## PRESENTING CLINICAL SIGNS

History: Acute respiratory distress. Responded well to oxygen and furosemide overnight. Grade III/VI systolic heart murmur. Blood pressure 90-120mmHg.

Abnormal PE/Chem/CBC/UA Results: T4 is WNL at 1.38. Currently mildly azotemic (taken after the furosemide) - BUN 41, creat 2.4.

-Radiographs: Showed heart enlargement, enlarged pulmonary vessels and an interstitial/alveolar pattern in the ventral lung fields.

-Current medications: furosemide 20 mg BID and clopidogrel 18.5 mg daily.

## ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is asymmetric with a significant focal septal thickening; the free wall measures significantly thickened as well. There is a diffusely hyperechoic endocardium consistent with fibrosis and ventricular remodeling. The systolic function is intact. The right ventricle is mildly affected, with mild atrial enlargement. There is severe left atrial enlargement. No obvious spontaneous contrast. Concern for early thrombus formation in the auricle (see below). The mitral valve appears normal. No MR or TR is appreciated. Blood flow through both great vessels is normal in velocity; however, an intermittent LVOTO is suspected on color flow imaging. No pericardial or pleural effusion. Arrhythmia noted throughout.

## CARDIAC CHART

| FELINE CARDIAC PARAMETERS  | BODY WEIGHT (kg)               | HR (BPM)  | IVSd (cm)<br><small>(Moise, Pipers)</small>                    | LVIDd (cm)<br><small>(Moise, Pipers)</small> | LWVd (cm)<br><small>(Moise, Pipers)</small> | FS (%)                        | EF (%) |
|--|--------------------------------|---|--|--|---|-------------------------------|--------|
| NORMAL PARAMETER   | -----                          | 150-240   | 0.35-0.55  | <2<br>(mean 1.5)                             | 3.5-0.55                                    | 35-67                         | 80-100 |
| PATIENT  | 7.0                            | NM  | 0.95   | 1.1  | 0.84  | 46                            | 81     |
| FELINE CARDIAC PARAMETERS  | LA/AO<br><small>(Boon)</small> | LA/AO HEART BASE<br><small>(Swe)<br/>(Abbott)</small> | LA 2D short axis Base view<br><small>(cm)<br/>(Abbott)</small> | LVOT VEL<br><small>(m/s)</small>             | RVOT VEL<br><small>(m/s)</small>            | E max<br><small>(m/s)</small> |        |
| NORMAL   | <1.5                           | <1.3  | <1.2   | <1.6   | <1.3  | <0.9                          |        |
| PATIENT  | 2.1                            | 1.8   | 1.8  | 1.5  | 1.1   | NM                            |        |
| <p><i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i><br/>Adapted from June Boon, Veterinary Echocardiography, 1998<br/>Abbott J &amp; 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.</p> |                                |   |  |  |   |                               |        |

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the history, this study is consistent with end-stage hypertrophic cardiomyopathy with biventricular involvement. The finding of severe left atrial dilation confirms the origin of clinical issues is cardiac in origin. There is concern for early thrombus formation, and the patient is at exceedingly high risk for blood clot formation/ATE. Continued lifelong medications are warranted as below with a dose adjustment given high dose Lasix therapy. Finally, arrhythmias are noted throughout the study and a **baseline ECG should be obtained.**



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

**PLAN**

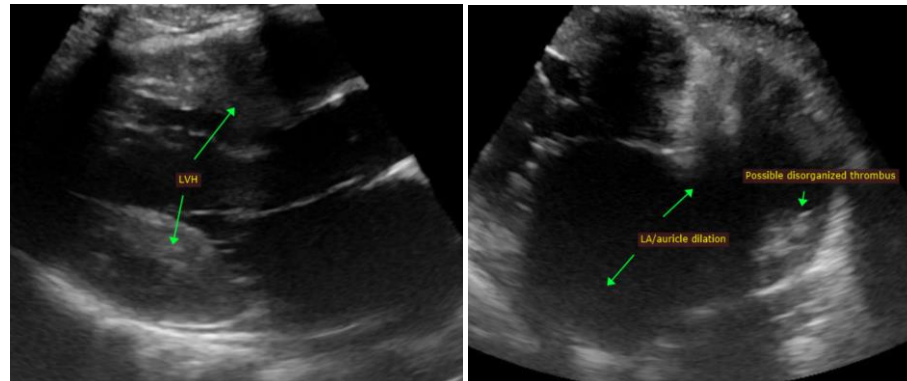
Continue Lasix at **1-2mg/kg PO q12h**. Continue blood thinner Clopidogrel (Plavix) 75mg tablets; give ¼ tab orally once daily (NOTE: this medication is very bitter on the cut edges). Institute Pimobendan (off label use) 1.25mg PO q12h.

Once stabilized, eating well at home and BP >130mmHg, consider addition of vasodilator ACE-I (benazepril or enalapril) 0.5mg/kg PO q12h.

Recheck renal values in 10-14 days to ensure tolerance of medications, then every 3-4 months lifelong.

A recheck echocardiogram is recommended in 4-6 months to assess for 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**  
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