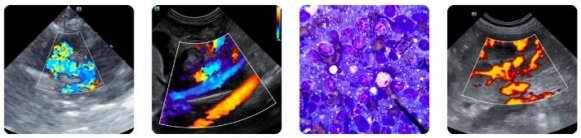




**DATE**

11.14.25

**PATIENT**

Paoloa Morales

**SPECIES**

Feline

**BREED**

DLH

**SEX**

FS

**AGE**

11.10.10

**WEIGHT**

7.3lbs

**INTERPRETED BY**

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

**HOSPITAL NAME**

Chadwell AH

**REFERRING VET**

Dr. Jones

**INVOICE**

45751

## PRESENTING CLINICAL SIGNS

History: CRF which had gradually improved with k/d, SQF and supportive GI meds. Suspected CHF developed, so SQF stopped 3 weeks ago after thoracocentesis at last DVM practice. No murmur has been heard. P has been doing generally well since, no changes in breathing. Appetite up and down, no V+
-Pertinent abnormal PE/Chem/CBC/UA Results (4/8/25): BUN 96, creat 5.7, SDMA 23.8, USG 1.016. 4/14: BUN 80, creat 4.0. 4/23: BUN 64, creat 2.9. 5/5: BUN 50, creat 3.2. 6/4: BUN 44, creat 2.6. 6/18: BUN 54, creat 2.3. 7/17: BUN 50, creat 2.4. 9/17: BUN 80, creat 3.7. 9/25: BUN 69, creat 3.1. 10/18: BUN 38, creat 1.9. 10/24: BUN 45, creat 2.2
-Current medications: Elura, Renal K, k/d diet.
-Blood Pressure:150mmHg
-Sedation used: Not required to complete full diagnostic ultrasound.
-Pertinent previous ultrasound results: No previous.
-STAT: Not requested.
-Imaging performed by: Stephanie Warga RDCS, RVT.

## ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is asymmetric with mild septal hypertrophy. There is a mildly hyperechoic endocardium consistent with fibrosis. The papillary muscles are remodeled. The LV systolic function is normal. The left atrium is severely dilated and bulbous in appearance with a horizontal component. No obvious spontaneous contrast visualized. The right atrium is moderate dilated. The mitral valve appears normal with mild central MR. The TV appears normal with trace TR. Normal velocity. Blood flow through the LVOT and RVOT are normal in velocity. Scant pericardial effusion. Pockets of  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 | 3.3 | NM | 0.65 | 1.7 | 0.50 | 50 | 86 |
| **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 | 2.0 | 1.8 | | 1.2 | 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

The finding of significant biatrial enlargement in the face of focal LV hypertrophy may reflect end stage HCM versus an unclassified cardiomyopathy. The right heart is also affected, albeit to a lesser extent. There is also significant remodeling and fibrosis and MR/TR, which should be monitored going forward.

Regardless of categorical classification, this degree of atrial dilation confirms pericardial and pleural effusion are likely due to spontaneous congestive heart failure, potentially exacerbated by fluid therapy. Ideally, lifelong medications are warranted going forward. This patient's azotemia/CKD is extremely concerning, as concurrent heart failure and renal failure confers a grave prognosis. If removing the fluid does not improve clinical signs, we may need to institute Lasix therapy, which is often an endpoint with CKD. If the treatment for CHF cannot be tolerated, euthanasia should be elected.

A therapeutic thoracocentesis is recommended to improve patient's stability and hopefully postpone use of diuretic therapy. The mean survival time for cats with CHF is <8-12 months; however, this cat prognosis is poor to grave. In a senior cat, renal function is of the utmost importance and will limit therapy.

Going forward, there will always remain risk for recurrent episodes of CHF and development of blood clots in the future. Monitoring of sleeping breathing rates at home is recommended as the best way to screen for recurrent CHF at home. Tolerance of medications in older cats is of the highest concern, and blood values must be watched carefully.

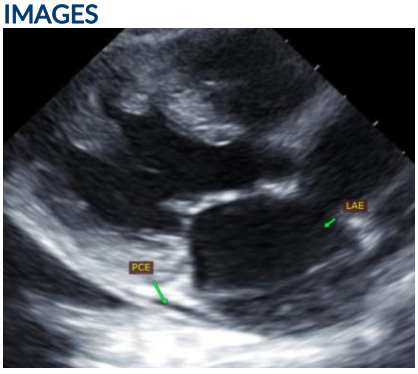
## PLAN

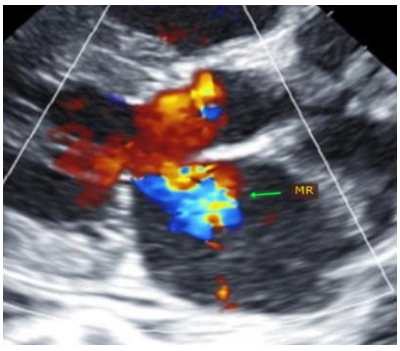
Consider thoracocentesis to improve stability. If any respiratory signs develop, Lasix will have to be utilized 1mg/kg PO q12h. Institute blood thinner Clopidogrel (Plavix) 75mg tablets; give ¼ tab orally once daily (NOTE: this medication is very bitter on the cut edges). Institute Pimobendan 1.25mg PO q12h (off label use). Do not recommend ACE-I.

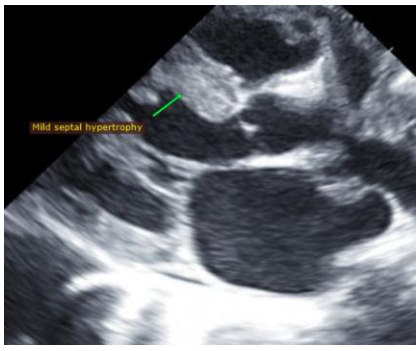
Recheck renal values/BP in 7-10 days to ensure tolerance of medications. If any decline occurs and the two disease processes cannot be stabilized, euthanasia should be considered.

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