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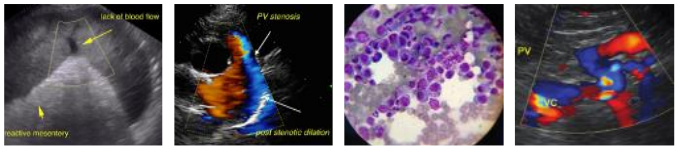



**PATIENT**
Sid O'Keefe

**SPECIES**
Feline

**BREED**
DSH

**SEX**
Male Neutered

**AGE**
14 years

**WEIGHT**
14.1lbs

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

**IMAGING PERFORMED BY**
Kelly Vazquez, CVT

**HOSPITAL NAME**
Englewood Cliffs Veterinary Hospital

**REFERRING VET**
Dr. Park

**INVOICE**
22829

**DATE**
2/28/22

## PRESENTING CLINICAL SIGNS

History: Patient presents for history of weight loss, azotemia, and possible bilaterally enlarged kidneys, proteinuria. Littermate recently passed away from acute hyper obstructive cardiomyopathy. Currently on KD diet.

## ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is severely hypertrophied with regions of asymmetry. There is a diffusely hyperechoic endocardium consistent with fibrosis. Symmetric papillary muscle hypertrophy. Mildly depressed LV function. There is severe left atrial enlargement present. Significant spontaneous contrast (smoke). No right atrial enlargement present. The right ventricle appears normal. Normal RVOT velocity. There is no obvious systolic anterior motion (SAM) of the mitral valve present, with a normal LVOT velocity. There is trace mitral regurgitation preset, secondary to annular stretch. 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. Hepatic congestion.

## CARDIAC CHART

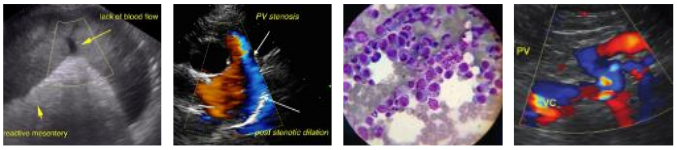
| FELINE CARDIAC PARAMETERS | BODY WEIGHT (kg) | HR (BPM) | IVSd (cm) (Moise, Pipers) | LVIDd (cm) (Moise, Pipers) | LVWd (cm) (Moise, Pipers) | FS (%) | EF (%) |
|---|---|---|---|---|---|---|---|
| NORMAL PARAMETER | ------ | 150-240 | 0.35-0.55 | <2 (mean 1.5) | 3.5-0.55 | 35-67 | 80-100 |
| PATIENT | 31.1 | NM | 0.93 | 1.26 | 0.98 | 41 | 76 |
| **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 | 1.6 | 2.4 | 2.3 | | 1.0 | 0.8 | NM |

**Note: All measurements based upon multi-modal images and methods. An average value is reported.*
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. Both should be ruled out as contributing factors in this case. The left atrium is significantly enlarged with significant smoke, indicating high risk for spontaneous CHF and/or blood clot events. The liver appears congested and there is great concern for impending CHF in this case. Finally, an irregular heart rate and rhythm are noted throughout the study and a baseline ECG is recommended.

Given these findings, recommend immediate full cardiac support as below including low-dose Lasix therapy even without respiratory signs. This is based upon an extremely high risk for decompensation at any time and hepatic congestion. **Azotemia is noted in the history and if this patient has underlying renal disease, this may certainly limit therapy.** Recommend proceeding with caution, with reassessment of kidney values in the near future. If the patient responds



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poorly to medication and/or fulminant CHF develops, euthanasia may need to be considered. If the patient is difficult to medicate, an alternative approach would be to simply monitor for symptoms in the future prior to medicating. The former is suggested given the severity of disease seen here.

With this degree of disease, patient will always be at high risk for 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 CHF at home.

Elective anesthesia, fluid therapy and/or steroids should be avoided lifelong.

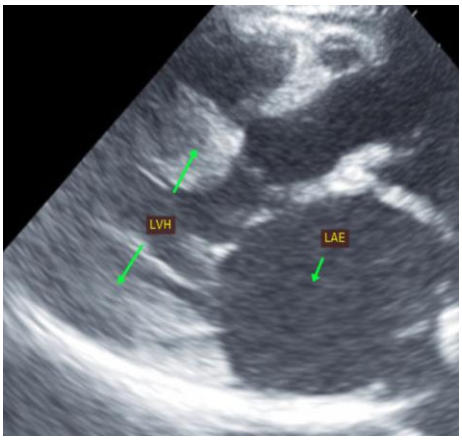
## PLAN

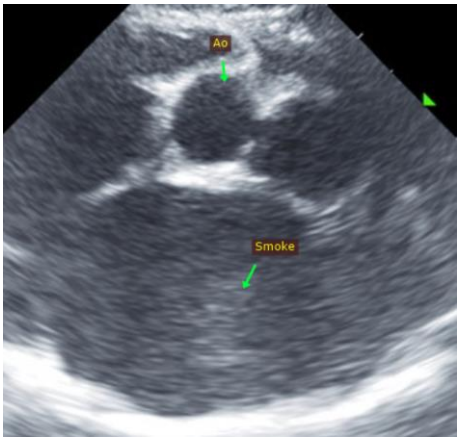
If elect to medicate: Administer Lasix 1mg/kg PO q12h. Administer Plavix to decrease risk of thrombi formation: Plavix 75mg ¼ tab SID (NOTE: bitter on cut edge, coat in entirety). Institute Pimobendan 1.25mg PO q12h.

Monitor BP and kidney values in 1-2 weeks, then every 4-6 months lifelong.

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**
**Diplomate of the American College of Veterinary Internal Medicine (Cardiology)**
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