IMAGING PERFORMED BY

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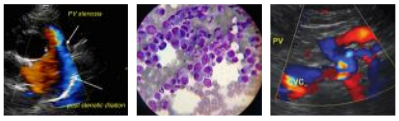

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**PATIENT**
Cooper Holback

**SPECIES**
Feline

**BREED**
DSH

**SEX**
Male Neutered

**AGE**
6.10.13

**WEIGHT**
21.3lbs

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

**HOSPITAL NAME**
Churchville Veterinary Clinic

**REFERRING VET**
Dr. Hoerle

**INVOICE**
24578

**DATE**
6.3.22

## PRESENTING CLINICAL SIGNS

History: 5/26/22- Presented for routine exam, vaccines, lab work due to weight gain. Unremarkable lab work other than pro BNP >1100.
-Pertinent abnormal PE/Chem/CBC/UA Results: Pro BNP >1100.
-Current medications: None. Gabapentin 100mg 2 hours prior.
Sedation used: Gabapentin PO. Torbugesic IV.
-Pertinent previous ultrasound results: No previous.
-Imaging performed by: Stephanie Pearce RDCS, RVT.
*During/following the exam, patient acutely decompensated and ultimately was euthanatized.

## ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is irregular with moderate septal hypertrophy and mild free wall thickening. There is a diffusely hyperechoic endocardium consistent with fibrosis and ventricular remodeling. Mild papillary muscle hypertrophy. The right ventricle appears mildly hypertrophied. There is severe left atrial enlargement present. No right atrial enlargement present. Normal RVOT velocity. No obvious systolic anterior motion (SAM) of the mitral valve present; however, an intermittent LVOTO is suspected. There is trace mitral regurgitation. No TR. No other obvious valvular regurgitation is present. Scant pericardial effusion noted. No pleural effusion appreciated.

## 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 | 9.7 | 186 | 0.78 | 1.6 | 0.65 | 41 | 74 |
| **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 | 2.0 | | 1.6 | 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.

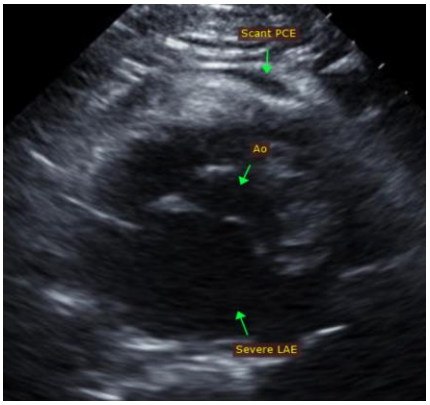
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

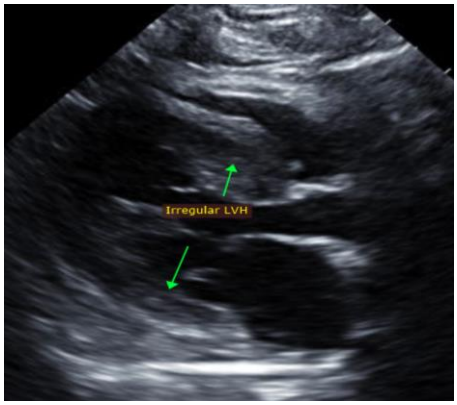
Hypertrophic cardiomyopathy (HCM) is a rule out diagnosis for LV hypertrophy once a patient is confirmed euthyroid and normotensive. Given an irregular LV appearance, primary disease is suspected; however, SHT or hyperthyroidism could be contributing. The left atrium is significantly enlarged, indicating high risk for spontaneous CHF and/or blood clot events. Finally, there is scant pericardial effusion noted which is most likely cardiogenic in origin and is supportive of early decompensation even without a history of respiratory signs.

This is likely a case of severe yet subclinical structural disease, that was pushed into a crisis/fulminant CHF with a stressful event. Unfortunately, this is common in cats without a prior murmur or signs at home. Even with full cardiac supportive medications and hospitalization, stabilization would likely have been difficult given the reported clinical issues. Humane euthanasia was a reasonable option in this case.

The mean survival time for cats in CHF (if able to be stabilized) is 8-12 months, however most cats are able to maintain a good quality of life on medications.

## 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.

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