



## PATIENT

Oliver Littleford

## SPECIES

Feline

## BREED

DSH

## SEX

Male Neutered

## AGE

8 years

## WEIGHT

19.7lbs

## INTERPRETED BY

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

## IMAGING PERFORMED BY

Mark van Campen,  
DVM

## PRESENTING CLINICAL SIGNS

History: Recheck echo. Previously diagnosed with HCM. No clinical signs of CHF, at exam mm were pale.

-Pertinent previous echo findings (9/2021 VCA): IVSd: 0.54, LVWd: 0.73. LA: 1.6. Mid-LV obstruction.

## ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is asymmetric with mild septal thickening and severe free wall hypertrophy. Adequate systolic function. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are remodeled and mildly hypertrophied. The mitral valve is normal with mild MR. The left atrium is moderate to severely dilated and bulbous in appearance with a horizontal component. No obvious smoke. The right atrium is normal. Tricuspid valve is normal with no TR. The right ventricle appears normal. The LVOT and RVOT are normal in velocity. No aortic insufficiency. No pericardial effusion seen. No pleural effusion. 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                         | 0.35-0.55                                | <2 (mean 1.5)              | 3.5-0.55                  | 35-67          | 80-100      |
| PATIENT                   | 9.0              | NM                              | 0.68                                     | 1.8                        | 0.89                      | 50             | 92          |
| 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                             | 2.2                                      |                            | 1.5                       | 0.9            | 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

HCM is a rule out diagnosis once hypertension and hyperthyroid disease have been ruled out. While these should be considered, the chronicity of disease and prior evaluations would suggest a primary origin is likely. Regardless, moderate to severe left atrial enlargement is present in addition to significant LV hypertrophy. The LA is significantly increased compared to the prior study. No obvious additional issues are identified.

Given the finding of progressive left atrial dilation, there is risk for progression in the future and medications can be considered for theoretic benefit. It is important to note that no medications have been shown to change outcome at this stage of disease. Pending blood pressure measurement >130mmHg, an ACE-I would be reasonable. Additionally, Plavix may be reasonable given atrial dilation to help decrease the risk of a blood clot event in the future. If there is difficulty or reluctance to medicate at home, simple monitoring would be an alternative approach. Discussion with the owner is advised.

## HOSPITAL NAME

Mississippi Mills  
Animal Hospital

## REFERRING VET

Dr. van Campen

## INVOICE

26634

## DATE

9/29/22



**PATIENT**

Oliver Littleford

The long-term prognosis is guarded given the degree of disease seen here. There will always remain risk for progression to CHF and development of blood clots and/or sudden death in the future. Monitoring is certainly advised, particularly should any respiratory signs, collapse or significant lethargy be noted in the future.

**SPECIES**

Feline

Anesthetic risk is considered moderate, however judicious IV fluid rates are advised to avoid fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid vasodilators as this may worsen the obstruction. A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, isoflurane maintenance. Additionally, steroids should be used with caution on older cats, as even a 'normal' geriatric heart can develop evidence of intolerance and fluid retention.

**BREED**

DSH

**SEX**

Male Neutered

**PLAN**

Screening BP and T4 are recommended every 6 months. If elect to medicate, oral medications are as follows: Institute blood thinner Clopidogrel (Plavix) 75mg tablets; give ¼ tab orally once daily (NOTE: this medication is very bitter on the cut edges). Institute ACE-I 0.5mg/kg PO q12h.

**AGE**

8 years

A recheck echocardiogram is recommended in 6 months to assess progression.

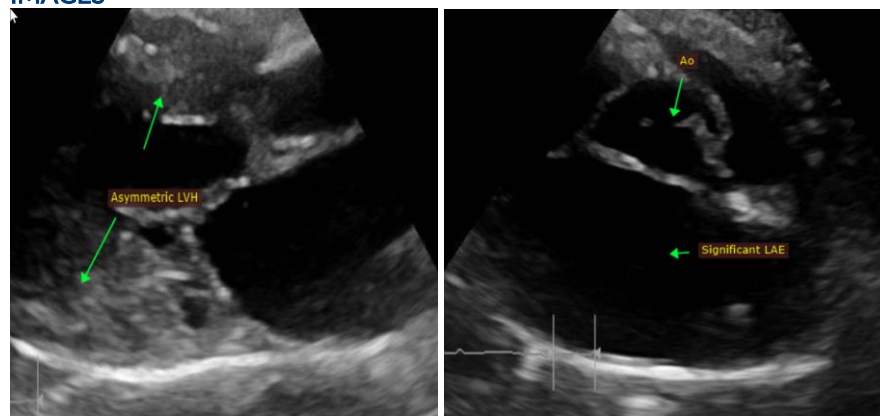
**WEIGHT**

19.7lbs

**IMAGES**

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DVM

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.

**HOSPITAL NAME**

Mississippi Mills  
Animal Hospital

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.

**REFERRING VET**

Dr. van Campen

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