

**PATIENT**

Garfield Wilkerson

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Male Neutered

**AGE**

5.17.10

**WEIGHT**

10.1lbs

**INTERPRETED BY**Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)**HOSPITAL NAME**Happier at Home  
Mobile Vet**REFERRING VET**

Dr. Haskin

**INVOICE**

26178

**DATE**

9.2.22

**PRESENTING CLINICAL SIGNS**

History: Unable to regulate high BP (initially Amlodipine ¼ QD, then increased to ½ QD, then switched to Semintra). History of elevated BNP on BW, initially was having weight loss- now is stable, at one exam a GM of grade 3 was ausculted, not heard at recent exam.

-Current medications: Semintra 0.66cc QD, will be adding Amlodipine ¼ tab QD.

-Blood pressure: 190, 190, 192mmHg.

-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 irregular with moderate septal thickening; however, the remainder appears normal. There is a mildly hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly hyperechoic. The left atrium is normal in size. The right atrium is normal in size. The right ventricle appears normal. The mitral valve is normal with trace MR. No TR. Blood flow through the RVOT is normal. The blood flow through the LVOT is normal on doppler; however, color flow and 2D imaging suggests of an intermittent LVOTO. Mild AI. Prominent aortic root. No pleural or pericardial effusion seen. No obvious cardiac tumors.

**CARDIAC CHART**

| FELINE CARDIAC PARAMETERS | BODY WEIGHT<br>(kg)            | HR<br>(BPM)                                       | IVSd<br>(cm)<br><small>(Moise, Pipers)</small>             | LVIDd<br>(cm)<br><small>(Moise, Pipers)</small> | LWVd<br>(cm)<br><small>(Moise, Pipers)</small> | FS<br>(%)      | EF<br>(%) |
|---------------------------|--------------------------------|---------------------------------------------------|------------------------------------------------------------|-------------------------------------------------|------------------------------------------------|----------------|-----------|
| NORMAL PARAMETER          | -----                          | 150-240                                           | 3.5-0.55                                                   | <2<br>(mean 1.5)                                | 3.5-0.55                                       | 35-67          | 80-100    |
| PATIENT                   | 4.5                            |                                                   | 0.70                                                       | 1.3                                             | 0.48                                           | 59             | 91        |
| FELINE CARDIAC PARAMETERS | LA/AO<br><small>(Boon)</small> | LA/AO HEART BASE (Swe)<br><small>(Abbott)</small> | LA 2D short axis Base view (cm)<br><small>(Abbott)</small> | LVOT VEL<br>(m/s)                               | RVOT VEL<br>(m/s)                              | E max<br>(m/s) |           |
| NORMAL                    | <1.5                           | <1.3                                              | <1.2                                                       | <1.6                                            | <1.3                                           | <0.9           |           |
| PATIENT                   | NM                             | 1.0                                               | 1.3                                                        | 1.4                                             | 1.1                                            | 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 primary abnormality identified is septal hypertrophy in addition to LV remodeling, which may be indicative of early hypertrophic disease or may simply represent a normal variant. The LA is normal which would indicate clinical stability. Serial echocardiography will be necessary to determine progression and clinical significance. Additionally, there is a mild LVOT obstruction with secondary MR, which appears intermittent and does not warrant therapy. Finally, an aortic leak is noted with a prominent aortic root, these findings in total are likely secondary to reported systemic hypertension and follow up for improvement, once normotensive is recommended. No additional issues are identified.

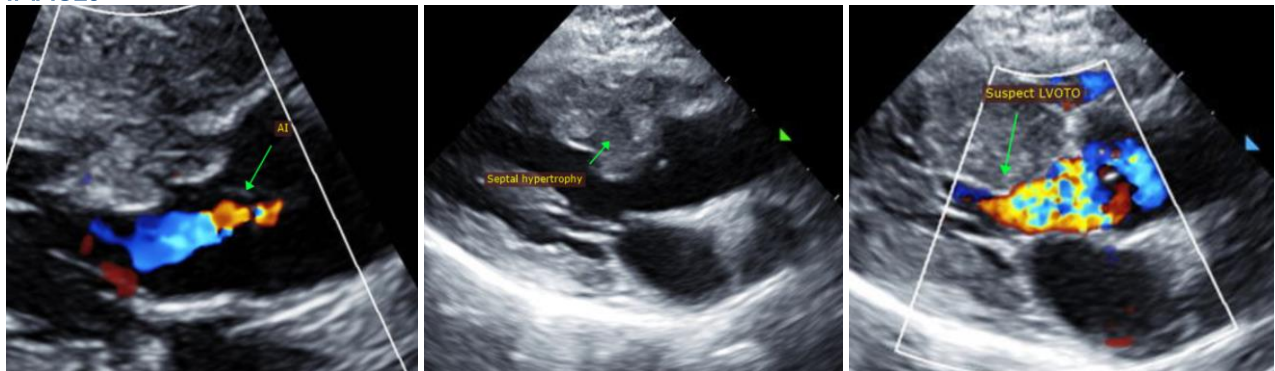
The patient's hypertension is reportedly refractory and continued management is advised. Consider screening for underlying causes such as PLN. Consultation with an Internal Medicine Specialist may be beneficial if necessary.

Anesthetic risk is considered mild, 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.

Monitor for any development of clinical signs, including labored breathing or signs of a blood clot (paralysis, neurologic change). Prognosis is guarded prior to assessing for progression.

A recheck echocardiogram is recommended in 6-12 months to screen for any evidence of 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.

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