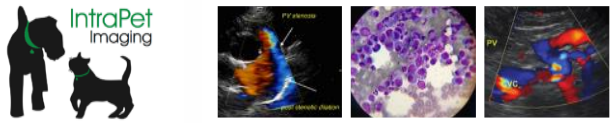
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

**PATIENT**
Crookshanks Serafini

**SPECIES**
Feline

**BREED**
Perisan

**SEX**
Male Neutered

**AGE**
7.3.07

**WEIGHT**
6.9lbs

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

**HOSPITAL NAME**
Perry Hall Animal Hospital

**REFERRING VET**
Dr. Baer

**INVOICE**
23281

**DATE**
3.24.22

## PRESENTING CLINICAL SIGNS

History: Recheck echo. History of grade 3/6 heart murmur. No clinical signs at home.
-Pertinent abnormal PE/Chem/CBC/UA Results: 3/22/22 CBC- HGB L 9.4, Chem 27 SDMA H 18. UA – cysto- USG 1.019, bacteria rare rods, T4 2.2.
-Current medications: none.
-Blood pressure: 200, 200, 210 and 210mmHg.
-Sedation used: Not required to complete full diagnostic ultrasound.
-Pertinent previous ultrasound results (6/19/2019 MML): Mild LVH: 0.6cm. LA: 1.2. Mid-LV obstruction.
-STAT: Not requested
-Imaging performed by: Stephanie Pearce RDCS, RVT.

## ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is highly irregular with a significant focal septal bulge and mild overall LV changes. There is a diffusely hyperechoic endocardium consistent with fibrosis. Papillary muscle appear hypertrophied with hyperechoic texture. The right ventricle is subjectively normal in size and morphology. There is no left atrial enlargement present. No right atrial enlargement present. Elevated RVOT velocity with a dynamic profile. Mild TR. Normal LVOT velocity. There is no obvious systolic anterior motion (SAM) of the mitral valve present; however, a mid-LV obstruction is suspected. No MR. There is no pericardial effusion noted. No pleural effusion appreciated. 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 | 3.1 | NM | 0.85 | 1.3 | 0.62 | 47 | 81 |
| **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 | 1.1 | 1.1 | | 1.1 | 2.4 | 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 once a patient is deemed normotensive and euthyroid. In this cat with significant hypertension, this may be related to progression. Compared to the prior study, the LV wall dimensions are increased with a highly irregular appearance. A dynamic RVOT obstruction is identified, which was not seen previously. This is a benign cause of a heart murmur, which may develop with HR or volume changes. No additional issues are identified. Fortunately, the LA remains normal despite these progressive changes.

The most important factor in this case is controlling systemic hypertension. Immediate institution of Amlodipine is recommended with screening for possible underlying causes. No treatment for the structural disease is recommended prior to atrial enlargement. No obvious indication for Atenolol at this time.

Prognosis is guarded going forward. Patient will always be at risk for progression to CHF, development of blood clots and/or sudden death in the future.

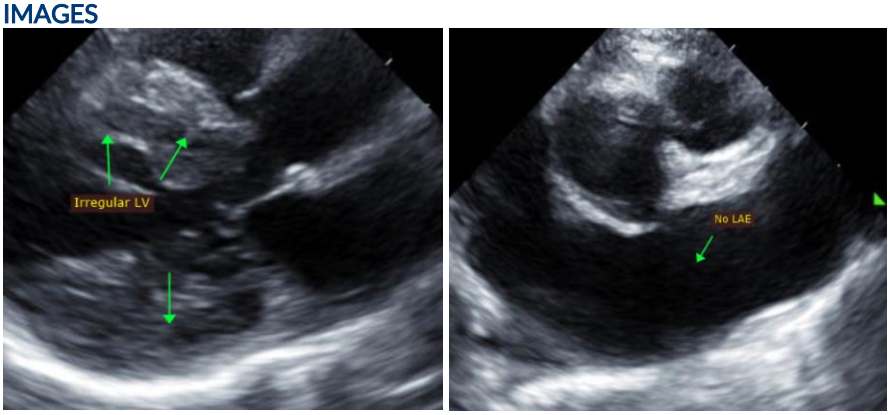
Monitor at home for any respiratory issues or signs of blood clot events (neurologic change, paralysis, etc.). Anesthetic risk is considered mild, however judicious fluid administration is advised if needed with careful RR/RE monitoring to screen for fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Risk for complication with steroid use typically follows LA dilation, which in this case is mildly elevated. If needed, monitoring of RR/RE is advised particularly in the initiation phase.

## PLAN

Institute Amlodipine to effect with a target heart rate of BP in hospital of <160mmHg. Screen for underlying causes of SHT. A screening blood pressure and T4 are recommended every 6 months lifelong.

A recheck echocardiogram is recommended in 6 months to assess for progression, sooner if any issues arise in the interim.

## 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**