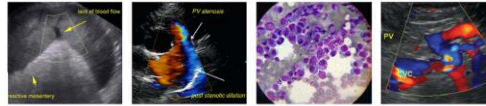
Mass Veterinary Specialty Services
1-413-734-1292



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

**PATIENT**
Callie McNulty

**SPECIES**
Canine

**BREED**
Hound Mix

**SEX**
Female Spayed

**AGE**
16 years

**WEIGHT**
39lbs

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

**IMAGING PERFORMED BY**
Pamela Harrigan, RDCS

**HOSPITAL NAME**
Mass Veterinary Specialty Services

**REFERRING VET**
Dr. Masloski

**INVOICE**
21724

**DATE**
10/26/21

## PRESENTING CLINICAL SIGNS

History: Recheck echo. History chronic valvular disease - Stage B1. Currently, Callie's cough has become worse over the past 6 months. Has coughing fits 4-6 times per day. Some wheezing has been noted but not any dyspnea. Callie continues to eat well with normal activity. CV/RESP: NSR, grade IV/VI murmur with PMI left apical area radiating to right, PSS, lung fields clear, no cough with tracheal pressure. BP: 240mmHg x 3. No medications.
*Sedated with propofol for study.
-Pertinent previous echo findings (4/26/21 MML): LA 2.2 cm; LA:Ao 1.0 cm; LV 30 cm; normal LA size; mild-moderate MR; trace

## ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
**Left ventricle:** The LV diameter is normal with adequate myocardial function. LV wall thicknesses are normal.
**Left atrium:** The left atrium is normal.
**Mitral valve:** The mitral valve is diffusely thickened with mild prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation with a normal velocity.
**Aortic valve/aorta:** The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. No aortic insufficiency.
**Right ventricle:** Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension.
**Right atrium:** Normal RA dimension.
**Tricuspid valve:** The tricuspid valve appears thickened with septal prolapse and trace tricuspid regurgitation. Normal velocity.
**Pulmonic valve/pulmonary artery:** The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow.
**Pericardium/other:** No pericardial or pleural effusion noted. No obvious cardiac masses.
**Heart rhythm:** ECG reveals a sinus rhythm with an average HR of 100bpm.

**2-Dimensional Measurements**

| Ao diam (cm) | 2.2 |
|---|---|
| LA diam (cm) | 2.2 |
| LA:Ao (Swe) | 1.0 |
| IVS thickness (cm) | 1.2 |
| LVID diastole (cm) | 2.95 |
| PW thickness (cm) | 1.0 |
| LVID systole (cm) | 1.7 |
| FS (%) | 42 |

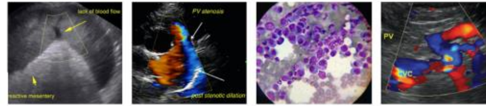
**Doppler Measurements**

| PV Vmax (m/s) | 0.6 |
|---|---|
| AoV Vmax (m/s) | 0.77 |
| MR Vmax (m/s) | 4.4 |
| TR Vmax (m/s) | 2.0 |
| TR PG (mmHg) | 16 |

## INTERPRETATION OF THE FINDINGS

Chronic degenerative valve disease persists with overall stability. While the MR appears slightly increased comparatively, persistently normal left heart dimensions are indicative of slow progression. Trace TR is unchanged without significant PAH. No concurrent issues are noted in this study.

The cough remains non-cardiac in origin. Consider airway disease more likely in this predisposed breed. Screening CXR, hydrocodone, etc. may be useful.





**PATIENT**
Callie McNulty

**SPECIES**
Canine

**BREED**
Hound Mix

**SEX**
Female Spayed

**AGE**
16 years

**WEIGHT**
39lbs

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

**IMAGING PERFORMED BY**
Pamela Harrigan, RDCS

**HOSPITAL NAME**
Mass Veterinary Specialty Services

**REFERRING VET**
Dr. Masloski

**INVOICE**
21724

**DATE**
10/26/21

Continued assessment of progression in the future will help predict long term prognosis, which is highly variable at this stage (B1).

The reported blood pressure is elevated (previously 120mmHg), and should be reassessed for accuracy particularly given no reported clinical signs of severe hypertension (retinal changes, etc) or evidence of LVH on echo. Ideally obtain serial measurements in a controlled, low stress environment and continue until 3 consecutive readings plateau within 5mmHg of variability. If persistently >180mmHg despite a relatively calm demeanor, recommend institution of amlodipine to effect. Additionally if deemed accurate, screening for predisposing underlying causes of SHT is recommended (Cushings, PLN, adrenal tumor, etc), as primary disease is relatively uncommon and a rule out diagnosis.

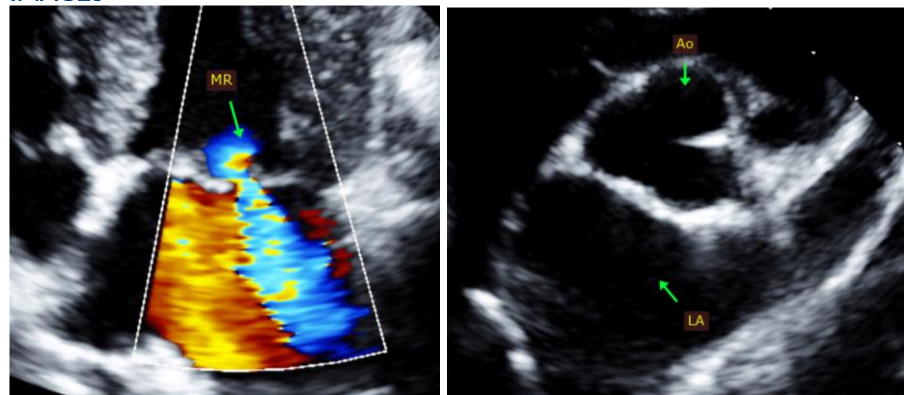
## RECOMMENDATIONS

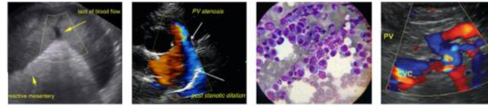
No cardiac medications are clearly indicated.
- Consider CXR, hydrocodone, etc. as discussed.
- Reassess BP.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Anesthetic risk is considered mild if needed. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Mild IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.
- Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

## PLAN

- Recommend conservative monitoring with a recheck echocardiogram in 6-12 months, sooner if any development of clinical signs.

## IMAGES





Mass Veterinary Specialty Services 1-413-734-1292

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

**PATIENT**
Callie McNulty

**SPECIES**
Canine

**BREED**
Hound Mix

**SEX**
Female Spayed

**AGE**
16 years

**WEIGHT**
39lbs

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

**IMAGING PERFORMED BY**
Pamela Harrigan, RDCS

**HOSPITAL NAME**
Mass Veterinary Specialty Services

**REFERRING VET**
Dr. Masloski

**INVOICE**
21724

**DATE**
10/26/21

**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

**Echocardiogram performed by:** Pamela Harrigan, RDCS
Pet Animal Ultrasound Service (4paus.com)