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Clinical Sonography & Telecytology
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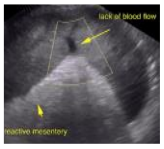

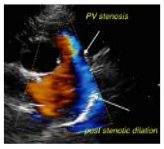

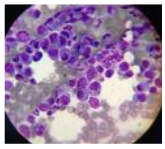
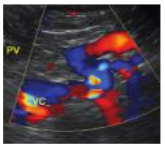


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1-800-838-4268 info@sonopath.com

**PATIENT**

Momo Medina

**SPECIES**

Feline

**BREED**

DSH

**SEX**

MN

**AGE**

12 yr

**WEIGHT**

12.2 lbs.

**INTERPRETED BY**

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

The Venturing Vet

**REFERRING VET**

Dr. Herzog

**INVOICE**

14584

**DATE**

8/12/22

## PRESENTING CLINICAL SIGNS

Grade III/VI heart murmur, asymptomatic. Current meds: Gabapentin for u/s.
Abnormal PE/Chem/CBC/UA Results: Glob. 2.1

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

| **FELINE CARDIAC PARAMETERS** | **BODY WEIGHT** (kg) | **HR** (BPM) | **IVSd** (cm) | **LVIDd** (cm) | **LVWd** (cm) | **FS** (%) | **EF** (%) |
|---|---|---|---|---|---|---|---|
| **NORMAL PARAMETER** | ------ | 150-240 | 0.3-0.6 | 1.0-2.1 | 0.25-0.6 | 35-67 | 80-100 |
| **PATIENT** | | 190 | 0.48 | 1.59 | 0.52 | 49.1 | 83.6 |
| **FELINE CARDIAC PARAMETERS** | **LA/AO** (Boon) | **LA/AO HEART BASE** (Sisson) | **LA** 2D 4-chamber long axis AS to FW (Sisson) (cm) | | **LVOT VEL.** (m/s) | **RVOT VEL.** (m/s) | **IVRT** (m/) |
| **NORMAL PARAMETER** | <1.5 | 0.88-1.79 | 0.7-1.7 | | <1.6 | <1.3 | 40-60 |
| **PATIENT** | 1.2 | 1.2 | 1.2 | | 1.1 | 0.65 | NM |

Adapted from June Boon,Veterinary Echocardiography,1998
Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705

### *Cardiac Presentation*

The echocardiogram in this patient demonstrated normal **left atrial** size and structure. Chamber volume and blood echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented minor irregular age-related changes that are not clinically significant at this time with adequate extension in systole and union in diastole. No evidence of systolic anterior motion of the mitral valve or MR on doppler. The **left ventricle** presented within normal limit free wall and septal thicknesses with mild alinear contour. The **myocardium** presented some echogenic remodeling consistent with expected age-related change or mild fibrosis. Mildly prominent to remodeled papillary muscles were noted. **Contractility** of the ventricular walls was adequate and in normal range for this breed and patient size. The **left ventricular outflow** tract demonstrated mild dynamic to turbulent outflow with subjective unremarkable structure. Subjective assessment of the **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated expected findings for this age patient. Trace TR was present on doppler. The **right ventricle** was of normal size (1/3 diameter of LV), echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No dilation due to cuor pulmonale or overt pulmonic hypertension was noted. No visible **pericardial** or free pleural fluid was noted. The **mediastinum** was free of masses in the visible window.

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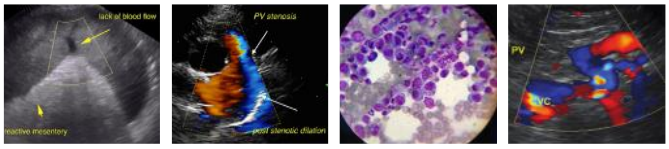


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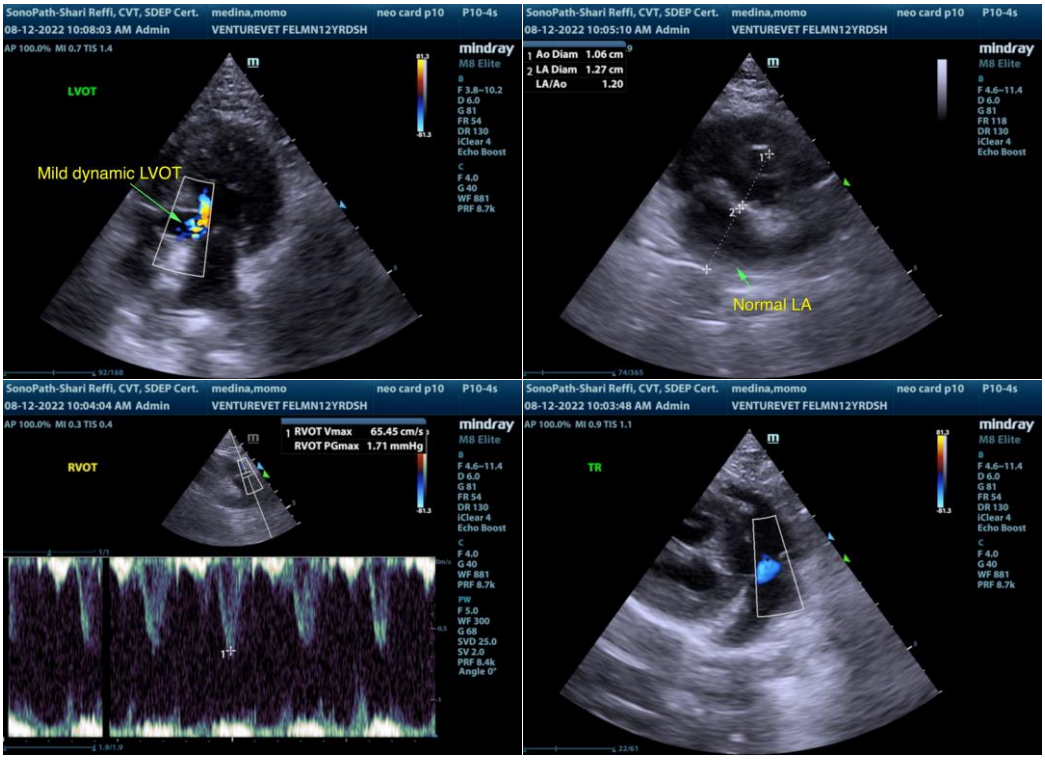
## ULTRASONOGRAPHIC FINDINGS

- Overtly normal cardiac structure and function for age
- Mild remodeled LV endocardium
- Normal left atrium
- Subjective mild dynamic to turbulent LV outflow, normal velocity

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of significant structural or functional cardiomyopathy with largely age-related myocardial changes present. Definitive cause of the murmur was not obvious without clinical issues such as left or right heart chamber enlargement, LV systolic dysfunction, or significant valvular insufficiencies.

Assuming no evidence of volume changes such as dehydration or anemia, the murmur is most likely a benign physiologic or flow murmur potentially associated with mild dynamic to turbulent LV outflow. Regardless, the overall normal cardiac structure and function for age indicate that the hemodynamic effects of the murmur are low at this time. No Indication for cardiac medications. Continued conservative monitoring of the murmur is recommended. Recheck echocardiogram Is recommended in 6 months, sooner if murmur intensity increases or if clinical signs arise. Assessment of T4 level is suggested if not recently done.



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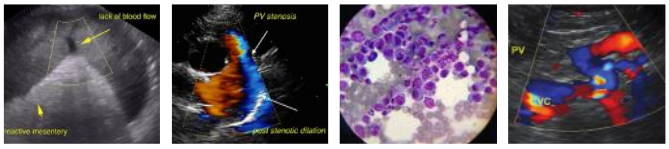

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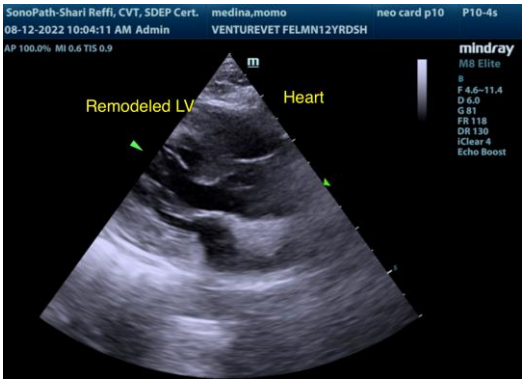


**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**
**info@SonoPath.com**