**PATIENT**

Muffy Spearman

**SPECIES**

Canine

**BREED**

Yorkshire Terrier

**SEX**

Female Spayed

**AGE**

13 y

**WEIGHT**

5.6 lbs

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Becca Hamilton

**HOSPITAL NAME**

Millburn VH

**REFERRING VET**

Dr. Turowsky

**INVOICE**

12958

**DATE**

12/17/25

## PRESENTING CLINICAL SIGNS

History: Last echo 2/19/25. Hx of stage B2, grade 4/6 left systolic murmur, asymptomatic.

MEDS: Vetmedin 1.25 mg BID, Enalapril 1.25 mg BID, Spironolactone 2.5 mg BID

Abnormal PE/Chem/CBC/UA Results: pending

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

| CANINE CARDIAC PARAMETERS | MR VMAX (m/s) | TR VMAX (m/s) | LA/AO (M-Mode) | LA/AO (Heart Base; Swe) | FS (%) | EF (%) | EPSS (cm) |
|---|---|---|---|---|---|---|---|
| NORMAL PARAMETER | 4.5-5.5 | <2.7 | 1.3 | Up to 1.6 | 28-40 | 40-100 | <0.6 |
| PATIENT | 5.2 | -- | -- | 2.3 | 50 | 82 | 0.4 |
| **CANINE CARDIAC PARAMETERS** | **HR** (BPM) | **AV VMAX** (m/s) | **PV MAX** (m/s) | **BODY WEIGHT** (kg) | **LAD** LA MAX 4 Chamber | **LVIDd** Avg; 2D and m-mode short axis (cm) | **LVIDs** Avg; 2D and m-mode short axis (cm) |
| NORMAL PARAMETER | 50-100 | 0.7-1.7 | 0.7-1.6 | | | | |
| PATIENT | 154 | 1.8 | 1.0 | -- | 3.2 | 3.3 | -- |

### *Cardiac Presentation*

The echocardiogram in this patient demonstrated significant increased **left atrial** size with mild intra atrial septum based on 2 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented thickening consistent with minor septal leaflet prolapse. Moderate to eccentric MR. MR velocity measured 5.2 m/s. The **left ventricle** presented moderate increased LV dimension and increased sphericity. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The **left ventricular outflow** tract demonstrated previously noted aortic insufficiency on doppler measuring 3.9 m/s. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology. No significant TR noted on doppler. Normal measured LVOT velocity. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). Normal measured RVOT velocity. No visible **pericardial** or free pleura fluid was noted. No echographically detectable evidence of cardiac / pericardial tumors was visible. No evidence of arrythmia or hepatic congestion.

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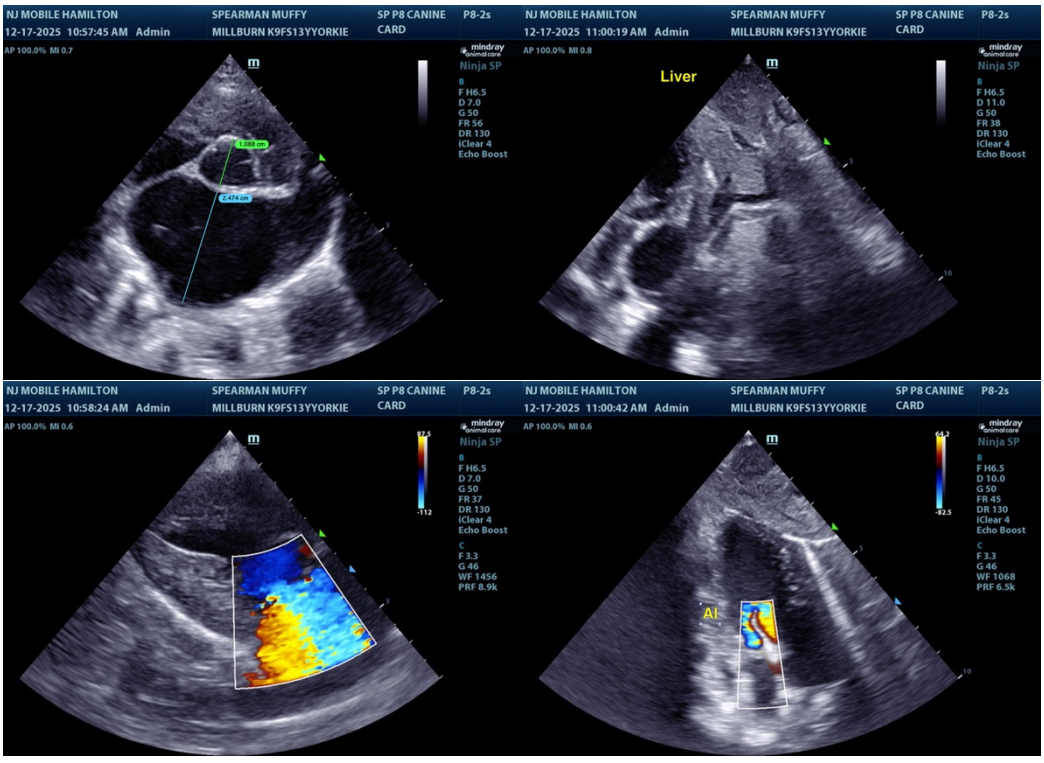
## ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease with minor mitral valve prolapse (ACVIM B2 – B2+)
- Aortic valve insufficiency

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Although potential for measurement variability between studies, the increased LA/AO ratio, mild increased measured LV internal dimension and current LA2D measurement indicated mild progression compared to the previous study. Continued current therapy warranted given reported no current clinical signs, prognosis remains highly variable to guarded going forward as this patient remains at increased risk for progressive CHF, progressive CHF or development of malignant arrythmia. Monitoring of renal parameters, ECG and systemic BP given aortic valve insufficiency as well as serial monitoring of resting respiration rate going forward is advised Elective anesthesia is not recommended unless absolutely necessary. If required, the following protocol is indicated with limited anesthetic tine and judicious IV fluid use, Recheck recommended in 4-6 months, sooner if clinically indicated. Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.




**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.**

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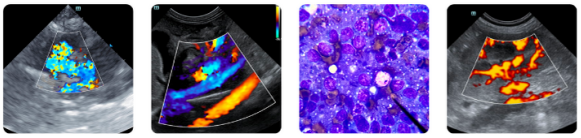

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Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**

info@sonopath.com