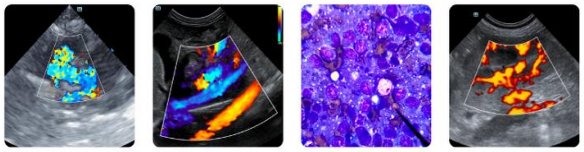


**PATIENT**
Tintin Barrios

**SPECIES**
Canine

**BREED**
Maltese

**SEX**
MN

**AGE**
14yr

**WEIGHT**
8.8lb

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

**IMAGING PERFORMED BY**
Rebecca Hamilton

**HOSPITAL NAME**
Vetco Total Care Kinnelon

**REFERRING VET**
Dr. Griffin

**INVOICE**
24647

**DATE**
04/27/2026

## PRESENTING CLINICAL SIGNS

Grade 2/6 murmur noted on PE for dental consult.

Abnormal PE/Chem/CBC/UA Results: Elevated ProBNP, CKD IRIS Stage 3

## 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 | -- | -- | -- | 1.1 | 55 | 86 | 0.1 |
| **CANINE CARDIAC PARAMETERS** | **HR** (BPM) | **AV VMAX** (m/s) | **PV MAX** (m/s) | **BODY WEIGHT** | **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 | 177 | 1.1 | 1.1 | 8.8lb | 1.8 | 1.95 | -- |

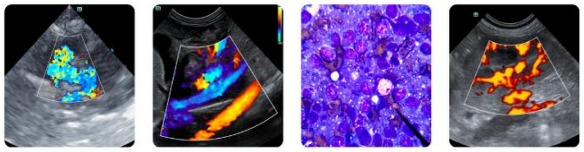
### *Cardiac Presentation*

The echocardiogram in this patient demonstrated normal left atrial size based on 2 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal mitral valve leaflets presented mild thickening consistent with mild degenerative changes/endocardiosis. The left ventricle presented thicknesses with linear contour and was not dilated nor restricted. 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 normal laminar flow and subjective structural integrity. Normal measured LVOT velocity. 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. 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 infiltrative disease was visible. The cranial mediastinum and pericardial regions were free of masses in the visible window.

## ULTRASONOGRAPHIC FINDINGS

### Primary

- Normal cardiac structure /function
- Mildly thickened mitral valve -consistent with mild degenerative change / endocardiosis



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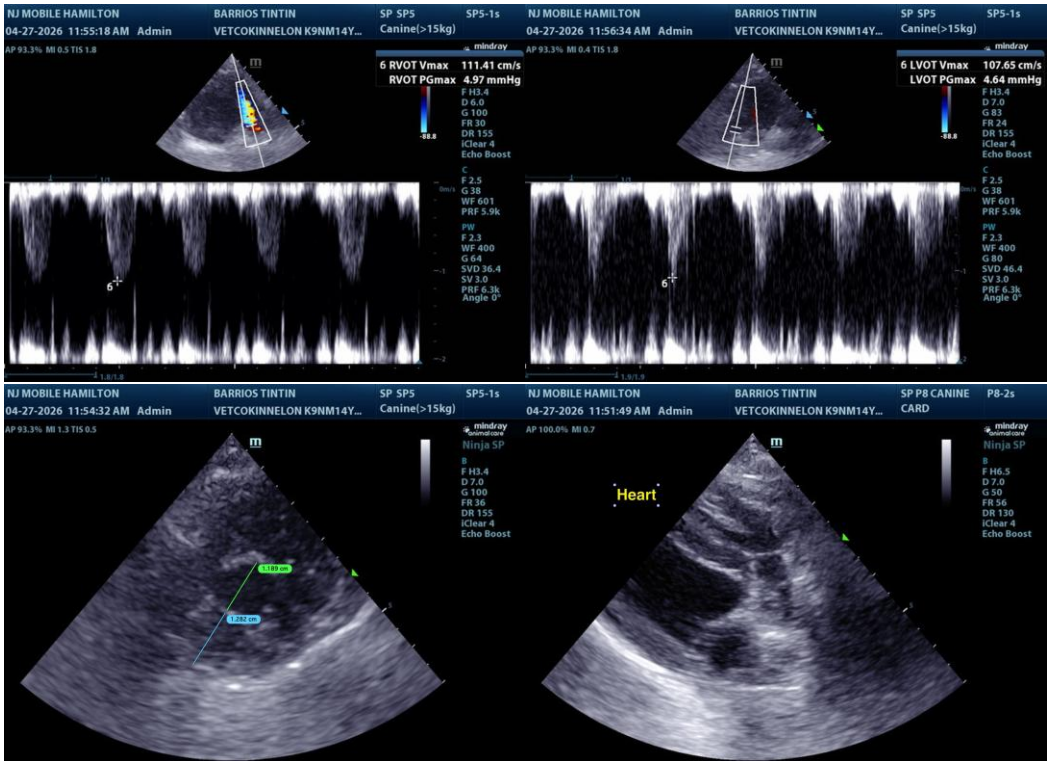
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

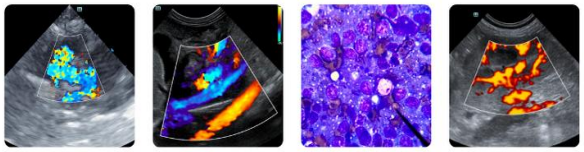
Although definitive MR was not obviously evident on Doppler, the cause of the murmur most likely consistent with compensated mitral valve insufficiency (B1). An additional non-visualized flow abnormality cannot be definitively excluded. Regardless of classification the lack of left / right heart chamber enlargement indicates the current hemodynamic effects of the murmur are low. No indication for cardiac medication.

Conservative monitoring of the mild murmur going forward is advised with recheck echo suggested in 6 to 12 months, sooner if increase in murmur intensity or if clinical signs arise. Current cardiac anesthetic risk is considered low to mild without contraindication. 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.**

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I





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can be of any further assistance, please contact me.

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