



**PATIENT PRESENTING CLINICAL SIGNS**

Sasha VanWyk coughing, new murmur heard

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

Canine

BREED

Pomeranian

SEX

FS

AGE

13 years

WEIGHT

22 lbs.

| CANINE                    | MR                   | TR                   | LA/AO               | LA/AO             | FS                                 | EF                                    | EPSS                                  |
|---------------------------|----------------------|----------------------|---------------------|-------------------|------------------------------------|---------------------------------------|---------------------------------------|
| <b>CARDIAC PARAMETERS</b> | <b>VMAX</b><br>(m/s) | <b>VMAX</b><br>(m/s) | (Boon method)       | (Heart Base; Swe) | (%)                                | (%)                                   | (cm)                                  |
| <b>NORMAL PARAMETER</b>   | 4.5-5.5              | <2.7                 | 1.3                 | <1.6              | 28-40                              | 40-100                                | <0.6                                  |
| <b>PATIENT</b>            | 5.2                  |                      |                     | 2.0               | 38.5                               | 70                                    | 0.2                                   |
| CANINE                    | HR                   | AV                   | PV                  | BODY WEIGHT       | LA                                 | LVIDd                                 | LVIDs                                 |
| <b>CARDIAC PARAMETERS</b> | (BPM)                | <b>VMAX</b><br>(m/s) | <b>MAX</b><br>(m/s) | (kg)              | 2D short axis<br>Base view<br>(cm) | Avg; 2D and m-mode short axis<br>(cm) | Avg; 2D and m-mode short axis<br>(cm) |
| <b>NORMAL PARAMETER</b>   | 50-100               | 0.7-1.7              | 0.7-1.6             | BELOW             | BELOW                              | BELOW                                 | BELOW                                 |
| <b>PATIENT</b>            | 133                  | 1.3                  | 1.1                 |                   | 4.7                                | 3.3                                   |                                       |

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Beech Mobile Services

**REFERRING VET**

Dr. Beech

**INVOICE**

15686

**DATE**

12/21/22

**Cardiac Presentation**

The echocardiogram in this patient demonstrated moderate increased LA size with subjective mild horizontal component based on 2 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented moderate thickening consistent with moderate endocardiosis without evidence of valvular prolapse. Doppler indicated measurable moderate eccentric insufficiency. The **left ventricle** presented normal thicknesses with maintained linear contour with subjective minor increased LV volume. 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. 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 evidence of significant TR on Doppler. 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). 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.



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**ULTRASONOGRAPHIC FINDINGS**

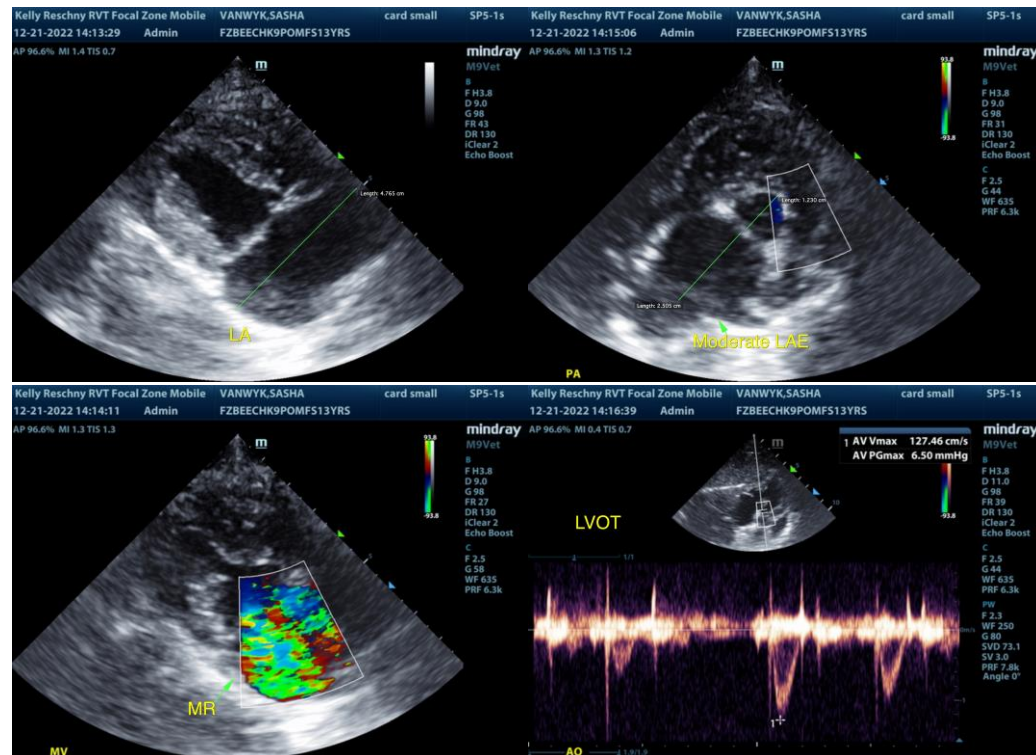
- Chronic mitral valve disease (ACVIM B2)

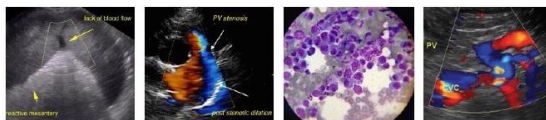
**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The moderate LA enlargement with subjective mild horizontal component to the increased LA dimension indicates that the current and future risk secondary to MR is moderately elevated.

Three-view chest radiographs are recommended to assess for evidence of radiographic pulmonary edema. The coughing in this patient may be multifactorial in origin with some contribution secondary to mainstem bronchi irritation or compression secondary to LA enlargement, as well as potential concurrent upper or lower airway disease. Pimobendan 0.3 mg/kg PO BID +/- low-dose diuretic therapy if evidence of radiographic pulmonary edema, as well as anti-tussive hydrocodone, is recommended.

Prognosis is variable and serial sonographic monitoring is recommended. Recheck echocardiogram is suggested in 6 months, sooner if clinical signs consistent with left-sided congestion, i.e., radiographic pulmonary edema, increased resting respiration rate, etc., are noted.





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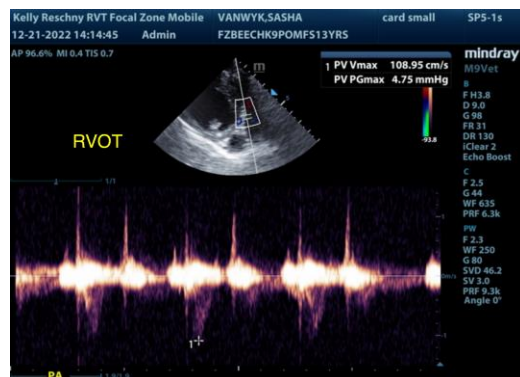
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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