

**PRESENTING CLINICAL SIGNS**

**SPECIES** History: Grade 2/6 systolic murmur, PMI left chest. Assess prior to anesthesia  
-Blood pressure: 173/128, 170/93, 136/90, 142/89mmHg.  
Canine -Sedation used: Torb.

**BREED** **ELECTROCARDIOGRAPHIC FINDINGS** \*Note: Single lead ECGs are evaluated as a rhythm strip. Morphology/MEA cannot be definitively commented on.

Husky A single lead ECG is available from an AliveCor monitor; 50mm/s, 20mm/mV. The average heart rate is 100bpm (range 81-130bpm). The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P and QRS morphologies are positive with normal dimension. No ectopic beats, pauses or dysrhythmias observed.  
**SEX**  
MN ECG diagnosis: Normal sinus rhythm with respiratory variation.

**AGE** **ECHOCARDIOGRAM FINDINGS**

65.6 lbs 2D, m-mode, color flow and doppler imaging is available. Minimal diffuse thickening of mitral valve leaflets with no obvious prolapse into the left atrial lumen. No mitral regurgitation is identified. Normal left atrial dimension. Normal LV diameter with adequate myocardial function. The tricuspid valve appears subjectively normal, with no tricuspid regurgitation. The right heart is normal (subjective). No overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. No aortic abnormalities identified, however the LVOT velocity is borderline elevated. Normal pulmonic outflow velocities. No aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No cardiac tumors observed.

**INTERPRETED BY** **CARDIAC CHART**

Maggie Machen  
Lamy, DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
ARDMS/RVT

**HOSPITAL NAME**

Conrad Weiser  
Animal Hospital

**REFERRING VET**

Dr. Comalli

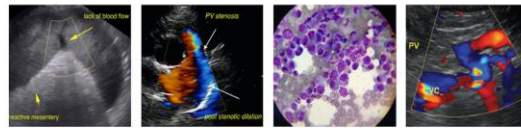
**INVOICE**

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| CANINE CARDIAC PARAMETERS  | MR VMAX (m/s) | TR VMAX (m/s) | LA/AO (Boon method) | LA/AO (Heart Base; Swe) | FS (%)                          | EF (%)                                   | EPSS (cm)                                |
|--|---------------|---------------|---------------------|-------------------------|---------------------------------|--|--|
| NORMAL PARAMETER   | 4.5-5.5       | <2.7          | 1.3                 | <1.6                    | 28-40                           | 40-100                                   | <0.6                                     |
| PATIENT  | NA            | NA            | NM                  | 1.1                     | 32                              | 62                                       | 0.17                                     |
| CANINE CARDIAC PARAMETERS  | HR (BPM)      | AV VMAX (m/s) | PV MAX (m/s)        | BODY WEIGHT (kg)        | LA 2D short axis Base view (cm) | 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             | BELOW                   | BELOW                           | BELOW                                    | BELOW                                    |
| PATIENT  | 122           | 1.8           | 1.2                 | 30.                     | 2.4                             | 3.2                                      | 2.2                                      |
| *Normal chamber parameters expressed as a mean value (SD)  |               |               |                     | 3                       | 1.2                             | 2.4                                      | 1.36                                     |
| BODY WEIGHT DEPENDENT PARAMETERS   |               |               |                     | 5                       | 1.4                             | 2.7                                      | 1.60                                     |
| *Note: All measurements based upon multi-modal images and methods. An average value is reported. |               |               |                     | 10                      | 1.5                             | 3.2                                      | 2.06                                     |
|  |               |               |                     | 15                      | 1.8                             | 3.7                                      | 2.43                                     |
|  |               |               |                     | 20                      | 2.0                             | 4.1                                      | 2.80                                     |
|  |               |               |                     | 25                      | 2.1                             | 4.4                                      | 3.10                                     |
|  |               |               |                     | 30                      | 2.3                             | 4.8                                      | 3.39                                     |
|  |               |               |                     | 35                      | 2.4                             | 5.1                                      | 3.69                                     |
|  |               |               |                     | 40                      | 2.6                             | 5.4                                      | 3.96                                     |
|  |               |               |                     | 50                      | 2.8                             | 6.0                                      | 4.46                                     |

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**DATE** 9.20.2021  
The only cause of a murmur identified is borderline increased flow velocity through the LVOT/aortic root. No obvious subaortic ridge or valvular abnormalities are visualized, and in the absence of structural abnormalities this is considered a benign flow murmur. If this is a new murmur, it is reasonable to monitor periodically via recheck echocardiography in the future. Additionally screening for fluid status abnormalities (dehydration, anemia, etc.) is recommended through routine lab work as these abnormalities would make this finding more prevalent. No significant valvular



insufficiencies were noted, and no structural issues identified. The ECG is unremarkable with a normal sinus rhythm.

**SPECIES**

Canine

No cardiac medications are indicated. No cardiac contraindication for general anesthesia.

**BREED**

Husky

Monitor for any development of cough, labored breathing or exercise intolerance.

The reported blood pressures are too variable to interpret. Ideally obtain serial measurements in a controlled, low stress environment and continue until the readings plateau within 5mmHg of variability for 3+ readings.

**SEX**

MN

Recommend recheck echocardiogram in 12-18 months to screen for progression or development of concurrent cardiac disease that the preexisting murmur may mask.

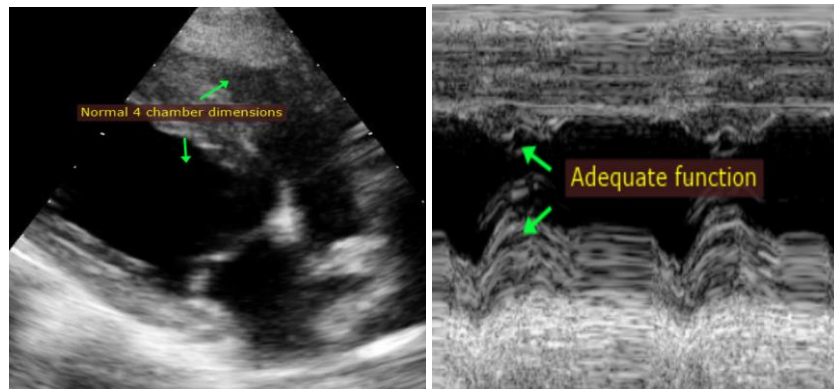
**AGE**

65.6 lbs

**WEIGHT**

8 years

**IMAGES**



**INTERPRETED BY**

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT ARDMS/RVT

**HOSPITAL NAME**

Conrad Weiser Animal Hospital

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

**REFERRING VET**

Dr. Comalli

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**INVOICE**

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**DATE**

9.20.2021