



**PATIENT PRESENTING CLINICAL SIGNS**

Brodie Hart History: Grade 3/6 heart murmur. Needs dental and removal of small mass on elbow. Interested in anesthetic risk. No meds.

**SPECIES** Abnormal PE/Chem/CBC/UA Results: n/a

Canine **ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

**BREED**

Border Collie X

**SEX**

Neutered Male

**AGE**

7 Years

**WEIGHT**

70.2 Lbs.

| CANINE CARDIAC PARAMETERS | MR VMAX (m/s) | TR VMAX (m/s) | LA/AO (Boon method) | LA/AO (Heart Base; Swe) | FS (%)                          | EF (%)                                   | EPSS (cm)                                |
|---------------------------|---------------|---------------|---------------------|-------------------------|---------------------------------|--|--|
| <b>NORMAL PARAMETER</b>   | 4.5-5.5       | <2.7          | 1.3                 | <1.6                    | 28-40                           | 40-100                                   | <0.6                                     |
| <b>PATIENT</b>            | 5.5           | 2.2           | NM                  | 1.31                    | 48.2                            | 80.8                                     | 0.2                                      |
| 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) |
| <b>NORMAL PARAMETER</b>   | 50-100        | 0.7-1.7       | 0.7-1.6             | BELOW                   | BELOW                           | BELOW                                    | BELOW                                    |
| <b>PATIENT</b>            | 128           | 1.4           | 1.2                 | --                      | 4.7                             | 4.0                                      | --                                       |

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Crystal Hill

**HOSPITAL NAME**

St. Catharine's AH

**REFERRING VET**

Dr. Boctor

**INVOICE**

13543

**DATE**

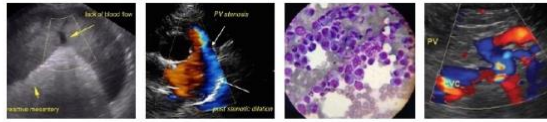
1/21/22

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. Mild subjectively centralized insufficiency present on color doppler assessment. No evidence of valvular prolapse of chordae tendineae rupture. 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. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. Mild TR present on color doppler. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** 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. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window.

**ULTRASONOGRAPHIC FINDINGS**

- Mild mitral valve insufficiency



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Brodie Hart

- Mild TR- estimated pulmonary pressure gradient (approximately 20 mm of mercury), not consistent with clinical pulmonary hypertension.
- Normal left atrium

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the murmur is most consistent with mild mitral valve insufficiency. This is suggestive of likely early chronic degenerative mitral valve changes. No other clinical issues such as systolic dysfunction, other significant valvular insufficiencies, stenotic disease or evidence of clinical pulmonary hypertension were noted. The lack of left atrium enlargement indicates that the risk of complications secondary to mitral valve insufficiency at this stage is low. No indication for cardiac medications. Conservative monitoring of the murmur is recommended. No anesthetic contraindications. Serial echocardiographic monitoring is advised or further prognosis with recheck echo suggested in 6 months or sooner if clinical signs suggestive of heart disease arise.

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.

<https://www.antechdiagnostics.com/cadet-braf>





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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.

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