



## PATIENT

Belle Ryan

## SPECIES

Canine

## BREED

Border Collie

## SEX

Spayed Female

## AGE

10 Years

## WEIGHT

40 Pounds

## PRESENTING CLINICAL SIGNS

History: Pre-anesthetic CUS for dentistry. Grade III/VI heart murmur and arrhythmia noted on exam 8/4/22 (report attached), BP=155/72. Current meds: Trazodone and Gabapentin pre u/s

Abnormal PE/Chem/CBC/UA Results: T4 0.6, Alb 2.6, AIP 169,

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

| 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                 | <1.3                    | 28-40                           | 40-100                                   | <0.6                                     |
| PATIENT                   | 5.22          | 1.82          | 1.3                 | 1.4                     | --                              | --                                       | 0.74                                     |
| 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             |                         |                                 |  |  |
| PATIENT                   | --            | 2.35          | 4.25                | --                      | 4.17                            | --                                       | --                                       |

## INTERPRETED BY

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

## IMAGING PERFORMED BY

Shari Reffi, CVT

## HOSPITAL NAME

Long Valley AH

## REFERRING VET

Dr. Earl/Welch

## INVOICE

16711

## DATE

8/5/22

## Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. The **left ventricle** presented mild volume overload. Aortic velocity was slightly elevated. 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 **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. Minor tricuspid insufficiency was noted. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. The pulmonary artery was dilated in this patient. Holosystolic jet was noted in the deep pulmonary artery consistent with patent ductus arteriosus, relatively small. Pulmonic insufficiency was noted. 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

- Holosystolic jet in the deep pulmonary artery, consistent with PDA. Bronchopulmonary fistula is also possible but less likely.



**PATIENT**

Belle Ryan

- Left and right sided volume overload

**SPECIES**

Canine

**BREED**

Border Collie

**SEX**

Spayed Female

**AGE**

10 Years

**WEIGHT**

40 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Long Valley AH

**REFERRING VET**

Dr. Earl/Welch

**INVOICE**

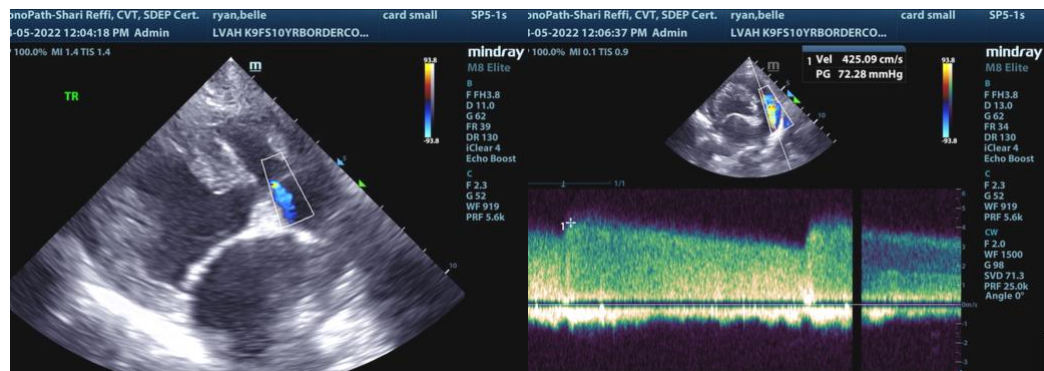
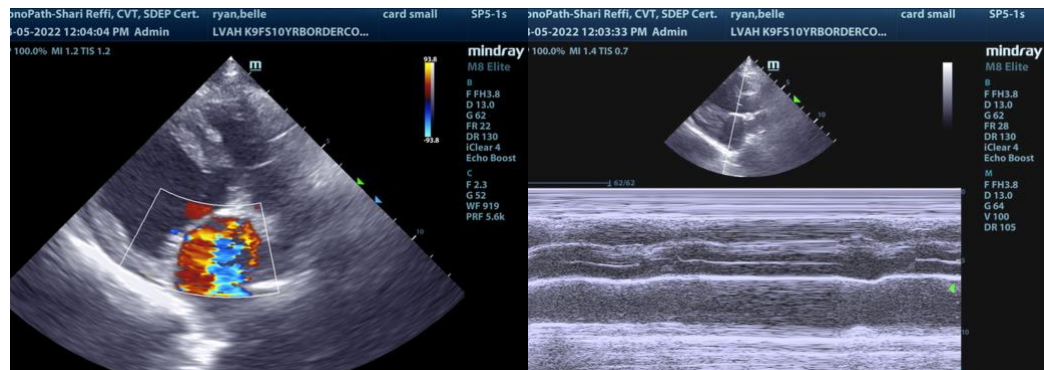
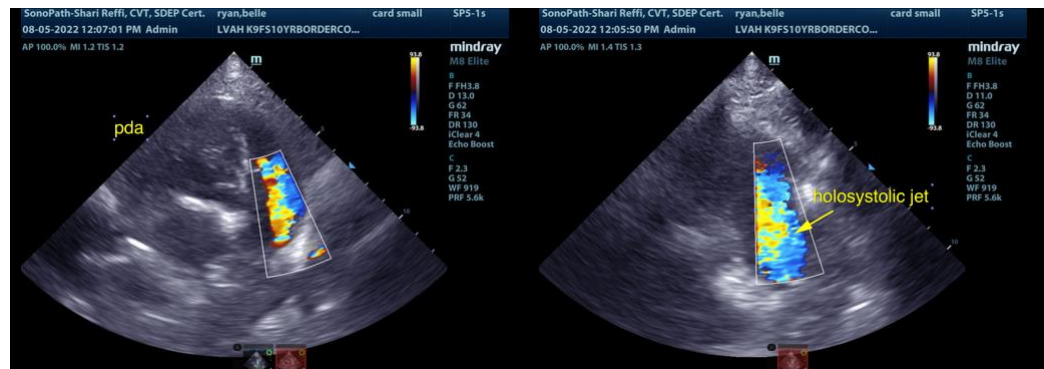
16711

**DATE**

8/5/22

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There is some anesthetic risk in this patient. Referral to a cardiologist for medical management is warranted. The surgical intervention is debatable, given the age of the patient.





**PATIENT**

Belle Ryan

**SPECIES**

Canine

**BREED**

Border Collie

**SEX**

Spayed Female

**AGE**

10 Years

**WEIGHT**

40 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Long Valley AH

**REFERRING VET**

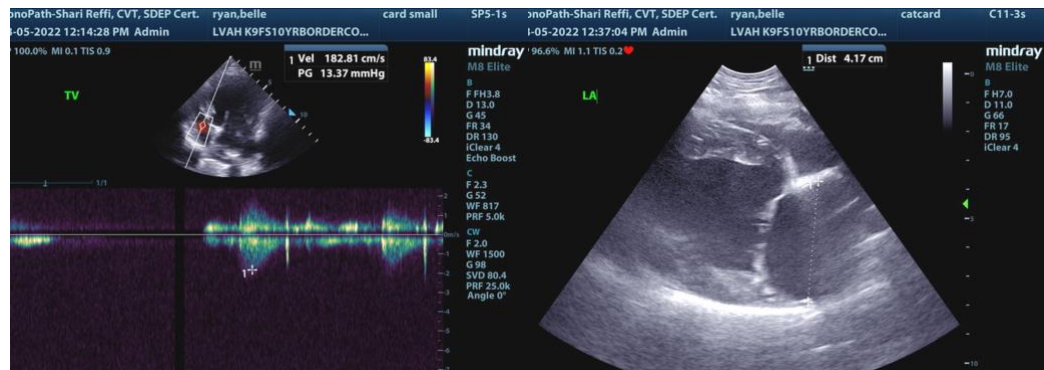
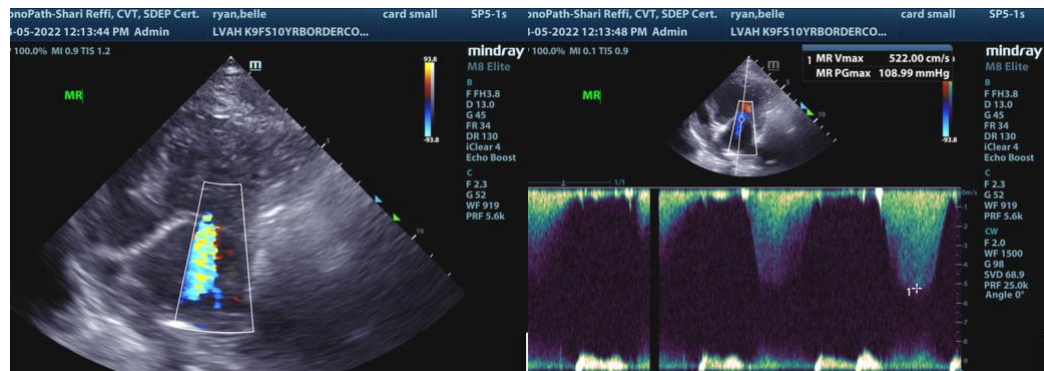
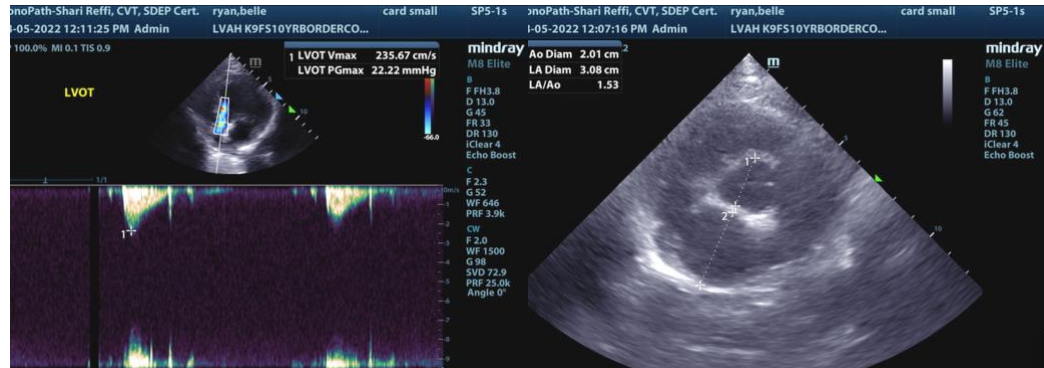
Dr. Earl/Welch

**INVOICE**

16711

**DATE**

8/5/22



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.

**Eric Lindquist**, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
info@SonoPath.com