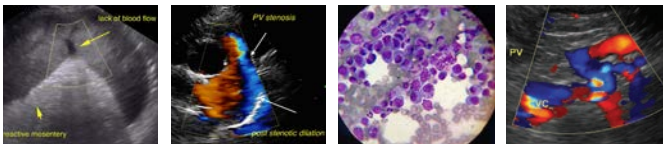
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
SonoPath.com
1-800-838-4268 info@sonopath.com



**PATIENT**
Dagmar Husarenko

**SPECIES**
Canine

**BREED**
Pit Bull

**SEX**
Neutered Male

**AGE**
7 Years

**WEIGHT**
77 Pounds

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

**IMAGING PERFORMED BY**
Shari Reffi, CVT

**HOSPITAL NAME**
Animal Mansion

**REFERRING VET**
Dr. Bertoldo

**INVOICE**
25145

**DATE**
9/2/21

## PRESENTING CLINICAL SIGNS

Coughing after activity, exercise intolerance. O reports doing better since starting meds. Current meds: Furosemide 12.5mg q12h, Enalapril 10mg q12h.
Abnormal PE/Chem/CBC/UA Results: Retics 9.7

## 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 | <1.6 | 28-40 | 40-100 | <0.6 |
| PATIENT | | | NM | 1.56 | 35.3 | 64.9 | 0.33 |
| **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 | 170 | 1.7 | 1.4 | | 4.2 | 4.28 | |

### *Cardiac Presentation*

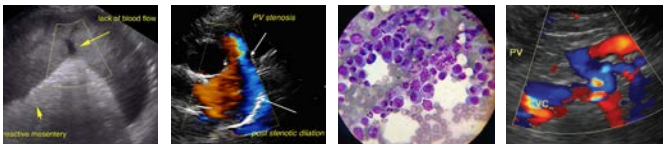
The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. The **left ventricle** presented 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. 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. No overt cranial mediastinum, pericardial or extracardiac masses were obvious in the visible window.

## ULTRASONOGRAPHIC FINDINGS

- Overtly normal cardiac structure and function

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The echocardiogram in this patient revealed overtly normal cardiac function and structure in light of breed. No overt evidence of arrhythmogenic disease, systolic dysfunction, stenotic valvular disease, valvular insufficiencies, or shunt. No overt evidence of pericardial or extracardiac neoplasia. Given the normal left atrial size and lack of significant left or right heart chamber enlargement, an obvious cardiogenic cause of the patient's clinical signs and exercise intolerance was not evident. Potential for



SonoPath.com
1-800-838-4268 info@sonopath.com

**PATIENT**

Dagmar Husarenko

**SPECIES**

Canine

**BREED**

Pit Bull

**SEX**

Neutered Male

**AGE**

7 Years

**WEIGHT**

77 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Animal Mansion

**REFERRING VET**

Dr. Bertoldo

**INVOICE**

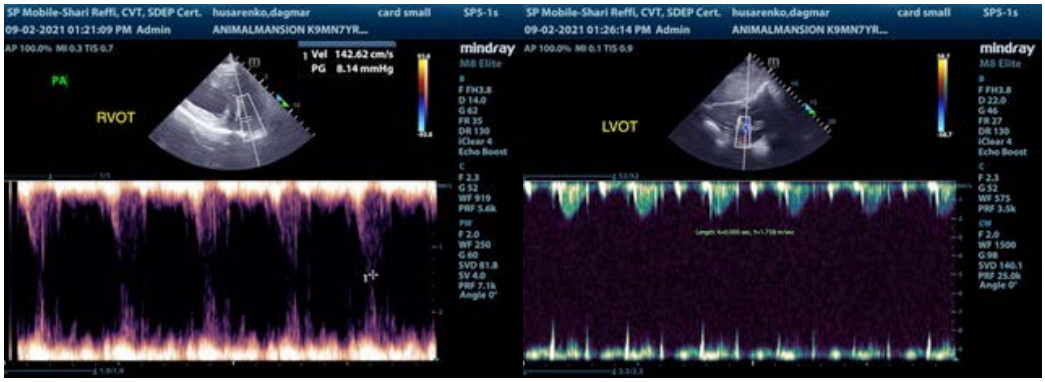
25145

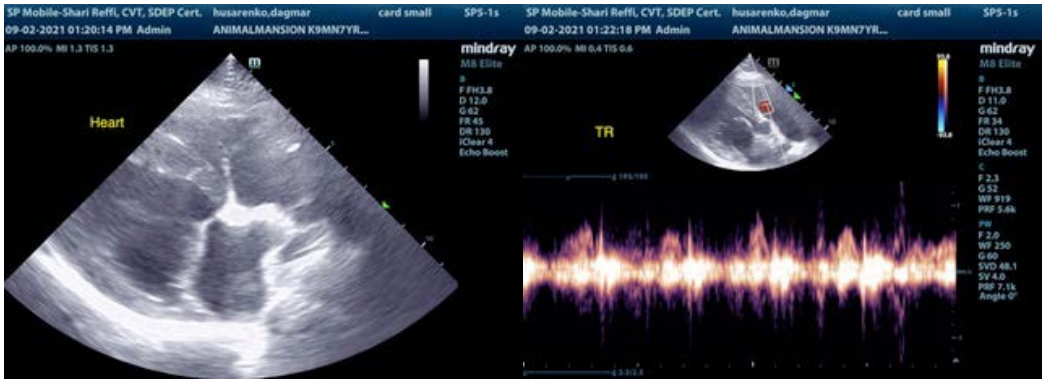
**DATE**

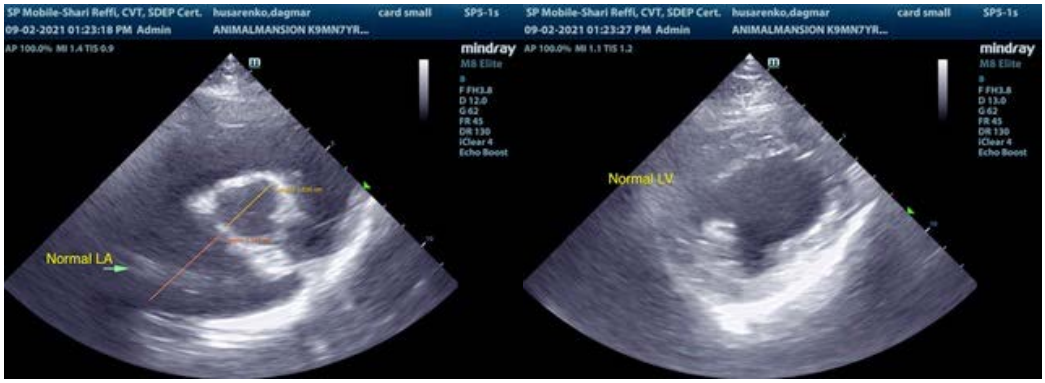
9/2/21

intermittent or paroxysmal arrhythmogenic disease cannot be definitively excluded. Cardiogenic pulmonary edema is considered unlikely given the lack of left or right heart chamber enlargement. Consideration for possible causes of non-cardiogenic edema may be indicated. ECG or ideally holter monitor assessment to assess for intermittent arrhythmia is suggested. Given the lack of systolic dysfunction, no overt indication for Pimobendan or Enalapril. Given the reported positive response to Furosemide, continued low-dose Furosemide with potential for weaning and monitoring of clinical response may be considered.

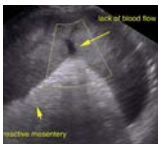
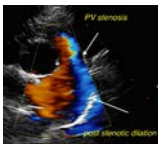
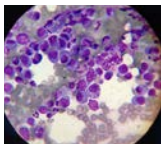
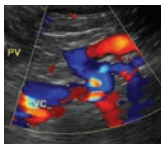
Recheck echocardiogram suggested in 4-6 weeks if current clinical signs including coughing and exercise intolerance continue in order to reassess the heart as well as potential for possible non-visualized pericardial or extracardiac pathology not visible in this study.



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

**PATIENT**

Dagmar Husarenko

**SPECIES**

Canine

**BREED**

Pit Bull

**SEX**

Neutered Male

**AGE**

7 Years

**WEIGHT**

77 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Animal Mansion

**REFERRING VET**

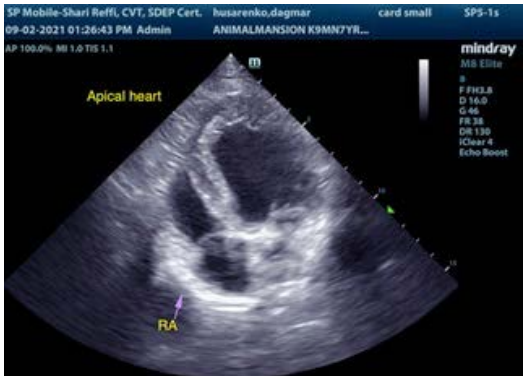
Dr. Bertoldo

**INVOICE**

25145

**DATE**

9/2/21




**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.

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