



## PATIENT

Emily DaSilva

## PRESENTING CLINICAL SIGNS

History: Patient presents for grade 2/6 heart murmur, coughing; improved on Lasix. Current meds: carprofen and Lasix.

## SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: CBC/Chem: WNL.

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

## BREED

Yorkshire Terrier

## SEX

FS

## AGE

15yr

## WEIGHT

4.4lb

| 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                   | 5.0           |               |                     | 1.6                     | 36                              | 69                                       | 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) |
| NORMAL PARAMETER          | 50-100        | 0.7-1.7       | 0.7-1.6             |                         |                                 |                                          |                                          |
| PATIENT                   | 112           | 1.0           | 0.7                 |                         | 2.2                             | 1.8                                      |                                          |

## INTERPRETED BY

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

## Cardiac Presentation

The echocardiogram for this patient presented excessive left atrial size expressed both in the LA/AO and LA max measurements. The cranial and caudal mitral valve leaflets presented vegetative thickening consistent with endocardiosis with mild prolapse of the anterior leaflet. Doppler indicated measurable eccentric insufficiency. 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 or chamber overload. Tricuspid valvular assessment demonstrated subjective mild concurrent thickening with likely mild 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). Mild PI present on Doppler measuring 1.4 m/s. 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.

## IMAGING PERFORMED BY

Kelly Vazquez

## HOSPITAL NAME

Veterinary Wellness  
Center

## REFERRING VET

Dr. Sepulveda

## INVOICE

11152ag

## ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (mild ACVIM B2) with mild prolapse of anterior leaflet

## DATE

07/18/2022



**PATIENT**

Emily DaSilva

- Mild pulmonic insufficiency

**SPECIES**

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the murmur is consistent with chronic degenerative valvular changes and concurrent mild anterior leaflet prolapse with secondary eccentric mitral valve insufficiency. The mild LA enlargement indicates that the risk for complications is mildly elevated however the degree of LA enlargement as well as lack of left ventricular enlargement was not overtly consistent with a cardiogenic cough owing to left sided congestion. Given the improvement on Lasix the coughing in this patient may be multifactorial in origin with primary lower airway disease a potential contributing factor. Pimobendan 0.3 mg/kg PO BID is suggested as this medication may help prolong cardiac changes associated with mitral valve insufficiency along with lowest effective dose of Lasix with potential weaning with monitoring of clinical response. Correlation with radiographic assessment of the thorax for improved vs recurrent evidence of pulmonary edema if clinically applicable is suggested.

Serial sonographic monitoring is required for further prognosis which is highly variable at this stage. Recheck echocardiogram suggested in 6 months, sooner if clinical signs suggestive of heart disease persist/progress.

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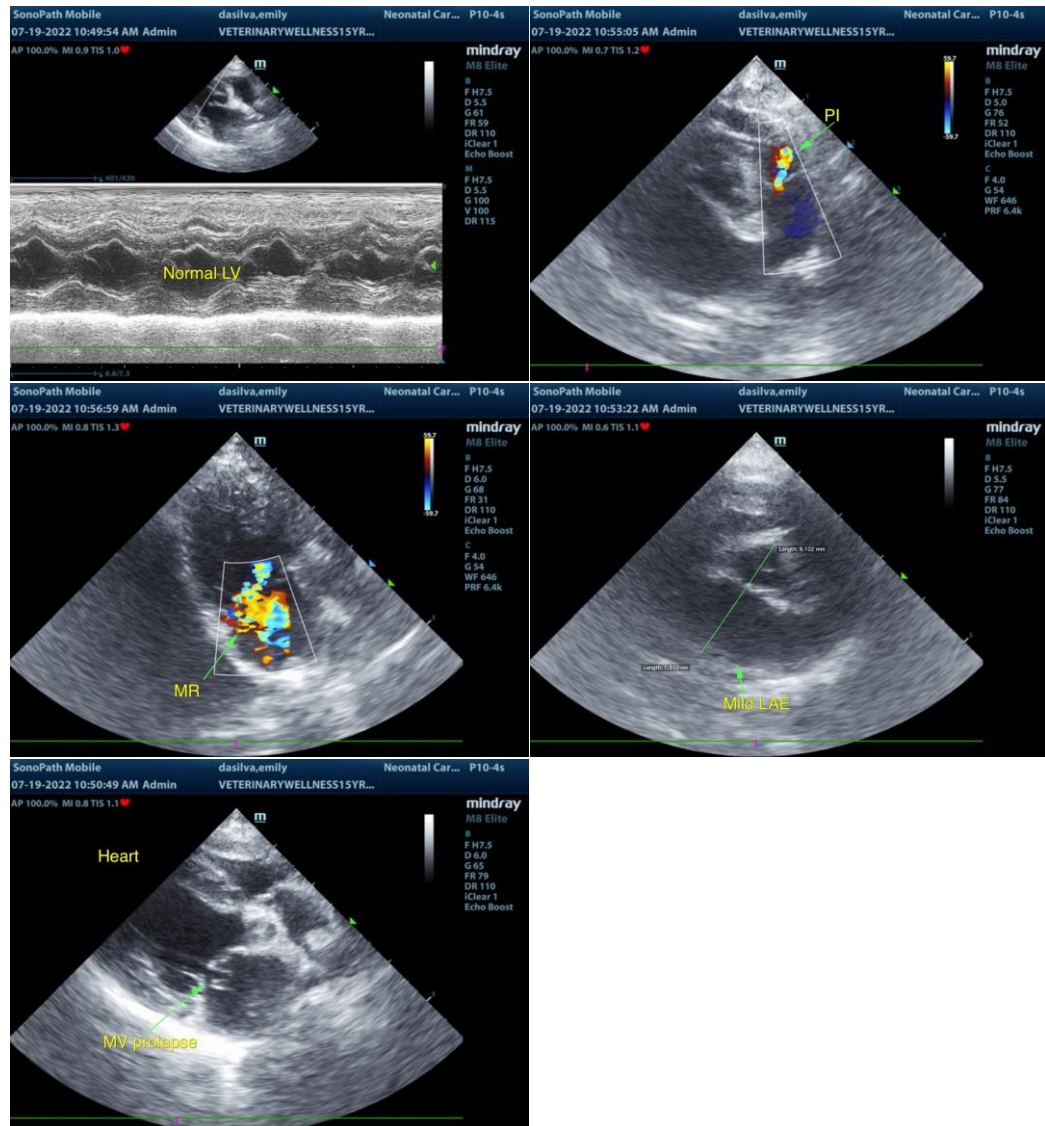
Dr. Sepulveda

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**PATIENT**

Emily DaSilva

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.

**SPECIES**

Canine

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)

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info@SonoPath.com

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