



**PATIENT**

Brody Moreno

**PRESENTING CLINICAL SIGNS**

History: Head twitching, seizure acute onset, no hx of seizures.  
 Abnormal PE/Chem/CBC/UA Results: nsf

**SPECIES**

Canine

**BREED**

Cockapoo

**SEX**

Neutered male

**AGE**

7 years

**WEIGHT**

23 lbs

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

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. Moderate filling of the left atrium was noted on color flow assessment of the mitral valve. Doppler indicated measurable 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 adequate linear morphology. 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). 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.

**INTERPRETED BY**

Eric Lindquist, DMV  
 DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Rockaway AH

**REFERRING VET**

Dr. Maniar

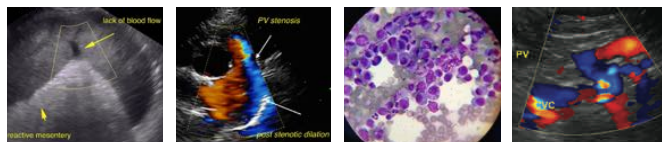
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| CANINE                    | MR                   | TR                   | LA/AO               | LA/AO             | FS                                 | EF                                    | EPSS                                  |
|---------------------------|----------------------|----------------------|---------------------|-------------------|------------------------------------|---------------------------------------|---------------------------------------|
| <b>CARDIAC PARAMETERS</b> | <b>VMAX</b><br>(m/s) | <b>VMAX</b><br>(m/s) | (Boon method)       | (Heart Base; Swe) | (%)                                | (%)                                   | (cm)                                  |
| <b>NORMAL PARAMETER</b>   | 4.5-5.5              | <2.7                 | 1.3                 | <1.3              | 28-40                              | 40-100                                | <0.6                                  |
| <b>PATIENT</b>            | 5.26                 |                      | NM                  | 1.48              | 26                                 | 53                                    | 0.5                                   |
| CANINE                    | HR                   | AV                   | PV                  | BODY WEIGHT       | LA                                 | LVIDd                                 | LVIDs                                 |
| <b>CARDIAC PARAMETERS</b> | (BPM)                | <b>VMAX</b><br>(m/s) | <b>MAX</b><br>(m/s) |                   | 2D short axis<br>Base view<br>(cm) | Avg; 2D and m-mode short axis<br>(cm) | Avg; 2D and m-mode short axis<br>(cm) |
| <b>NORMAL PARAMETER</b>   | 50-100               | 0.7-1.7              | 0.7-1.6             |                   |                                    |                                       |                                       |
| <b>PATIENT</b>            | 82                   | 1.27                 | 0.78                | 23 lbs            | 3.47                               | 2.93                                  |                                       |



**PATIENT** **ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Brody Moreno

**Urinary System**

**SPECIES**

Canine

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

**BREED**

Cockapoo

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 4.56 cm. The left kidney measured 4.39 cm.

**SEX**

Neutered male

**AGE**

7 years

**Adrenal Glands**

**WEIGHT**

23 lbs

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 1.56 x 0.8 cm at the cranial pole and 0.49 cm at the caudal pole. The left adrenal gland measured 1.83 x 0.43 cm at the cranial pole and 0.53 cm at the caudal pole.

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**Spleen**

The **spleen** revealed a focal, hypoechoic nodule that measured 0.48 cm at the cranial body.

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**Liver**

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The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

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**Gastrointestinal**

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Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

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**PATIENT**

**Pancreas**

Brody Moreno

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

**SPECIES**

Canine

**ULTRASONOGRAPHIC FINDINGS**

**BREED**

Stage B1 valvular disease.

Cockapoo

Splenic nodule.

**SEX**

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Neutered male

There is no evidence of clinical cardiac disease at this point. The splenic nodules should be monitored. A recheck sonogram is recommended in 3-4 weeks. Differentials include hyperplasia, which is likely with a mild potential for emerging round cell neoplasia or hemangiosarcoma.

**AGE**

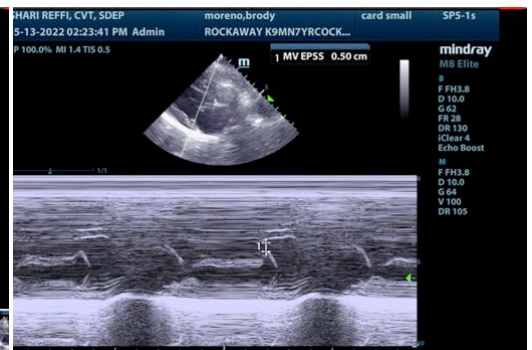
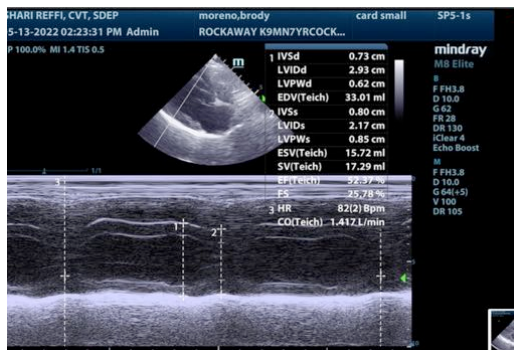
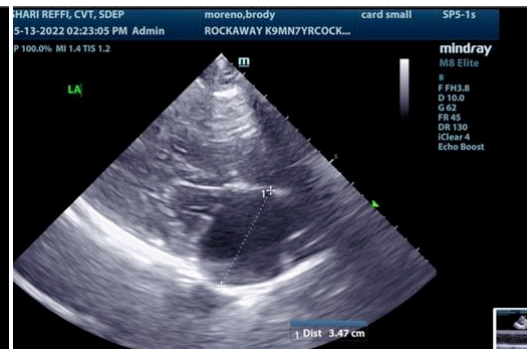
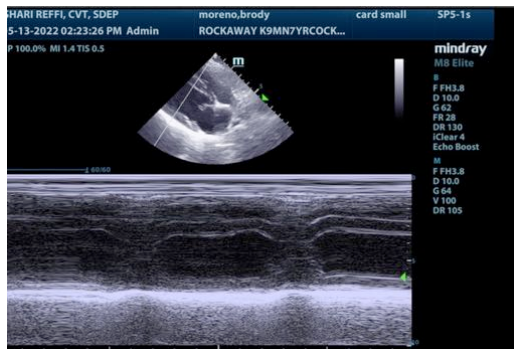
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**WEIGHT**

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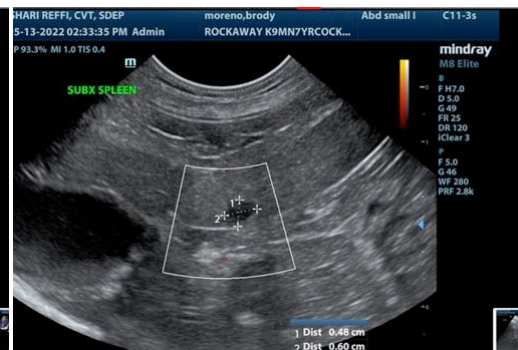
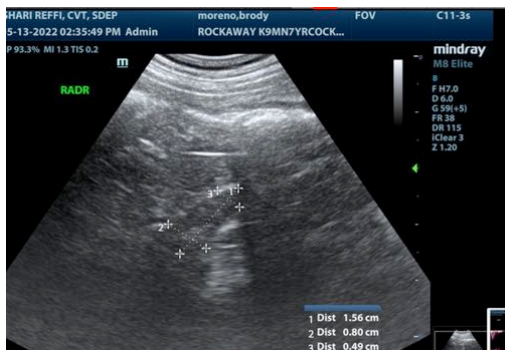
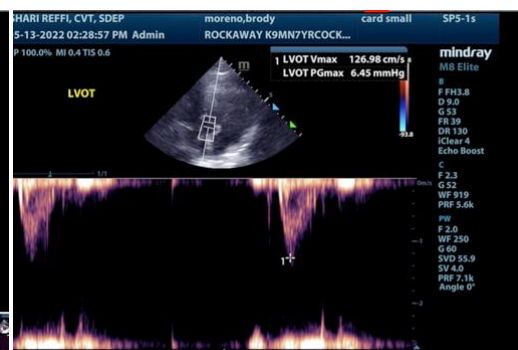
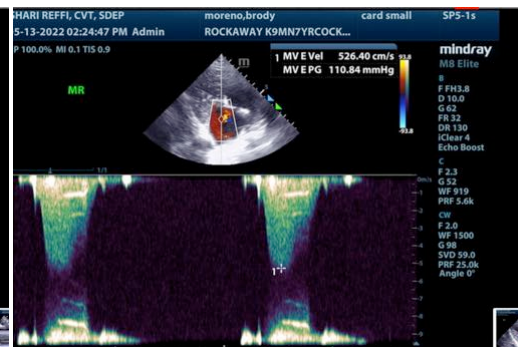
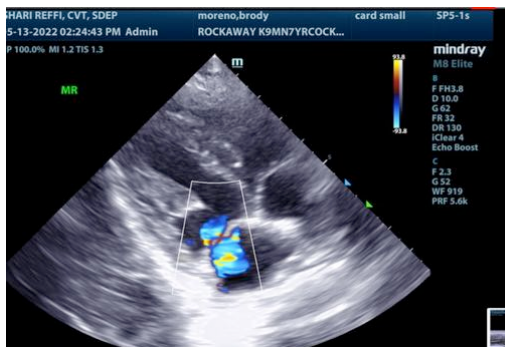
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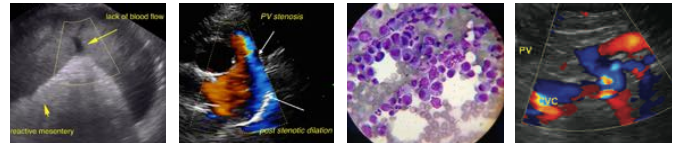
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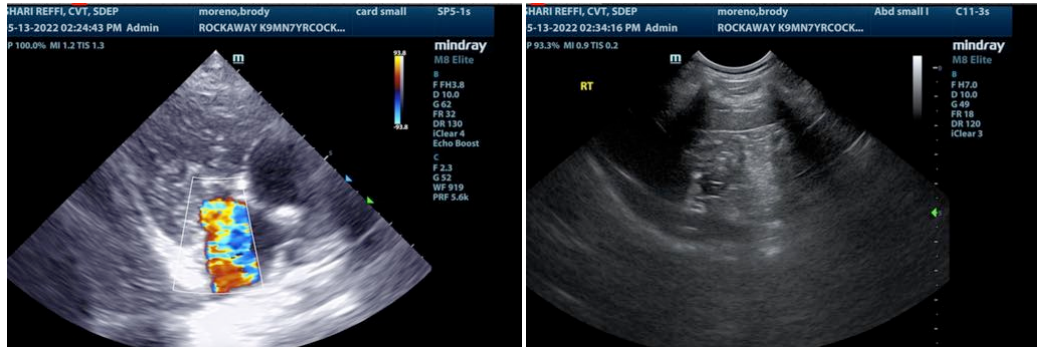
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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**  
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