



## PATIENT PRESENTING CLINICAL SIGNS

**PATIENT** Lulu Gonzalez  
**SPECIES** Canine  
**BREED** Bluetick Coonhound  
**SEX** Spayed Female  
**AGE** 10 Years  
**WEIGHT** 64 Pounds

History: Patient presents for lethargy, anorexia, and generalized ADR. Temp WNL. Concern for possible mass in abdomen vs. other. Current meds: Gabapentin (dog cannot take NSAIDS as it causes immediate diarrhea).  
 Abnormal PE/Chem/CBC/UA Results: CBC/Chem: WNL.

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

| 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                  | 1.1                     | 26.4                            | 55.9                                     | 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             | BELOW                   | BELOW                           | BELOW                                    | BELOW                                    |
| PATIENT                   | 99            | 1.5           | 1.0                 | --                      | 3.6                             | 3.67                                     | --                                       |

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Kelly Vazquez

## HOSPITAL NAME

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Dr. Milwicki

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4/7/22

### 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. 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 mildly subnormal 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. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window.

### Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or



**PATIENT**

sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

Lulu Gonzalez

**SPECIES**

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 6.6 cm in length. The right kidney measured 7.1 cm in length.

Canine

**BREED**

**Adrenal Glands**

Bluetick Coonhound

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.0 cm in length x 0.57 cm width at the caudal pole.

**SEX**

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 2.1 cm in length x 0.41 cm width at the caudal pole.

Spayed Female

**Spleen**

**AGE**

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

10 Years

**WEIGHT**

**Liver**

64 Pounds

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

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**Gastrointestinal**

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The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of mechanical obstruction or foreign material or loss of intestinal wall layering. Subtle areas of jejunal ileus noted.

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The colon was sonographically normal, containing formed to shadowing fecal matter, potential for colonic distention with fecal matter possible yet not definitive.

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**Pancreas**

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The area of the left pancreas exhibited subtle hypoechoic parenchyma, including minor subjective pancreatic duct dilation and areas of minor capsule asymmetry. Potential for very minor peripancreatic mesentery around the left pancreas.

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**Free Abdomen**

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No overt lymphadenopathy or free fluid was present.

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No evidence of pathology in the area of the uterine remnant or aortic trifurcation.

Lulu Gonzalez

**ULTRASONOGRAPHIC FINDINGS**

**SPECIES**

- Normal echocardiogram with mild LV hypocontractility- systemic disease, hypothyroidism, athletic state can present in this fashion. DCM criteria is not present.

Canine

- Subtly hypochoic left pancreas- potential low-grade inflammation, although not definitive

**BREED**

- Possible mild gastroenteritis

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Bluetick Coonhound

Overall, no evidence of significant cardiac or intraabdominal visceral pathology. Potential for low-grade pancreatitis could be considered if evidence of cranial abdominal or subxiphoid pain on palpation. Correlation with a Spec CPL warranted. No visualized mass or evidence of intraabdominal neoplastic criteria present.

**SEX**

Spayed Female

Although considered unlikely, resting cortisol level could be considered to rule out occult Addisons disease, given the vague clinical signs in this patient. As needed gastrointestinal supportive care recommended. If not done, thorough musculoskeletal and neurological examination, as well as three-view chest radiographs to rule out occult thoracic pathology suggested.

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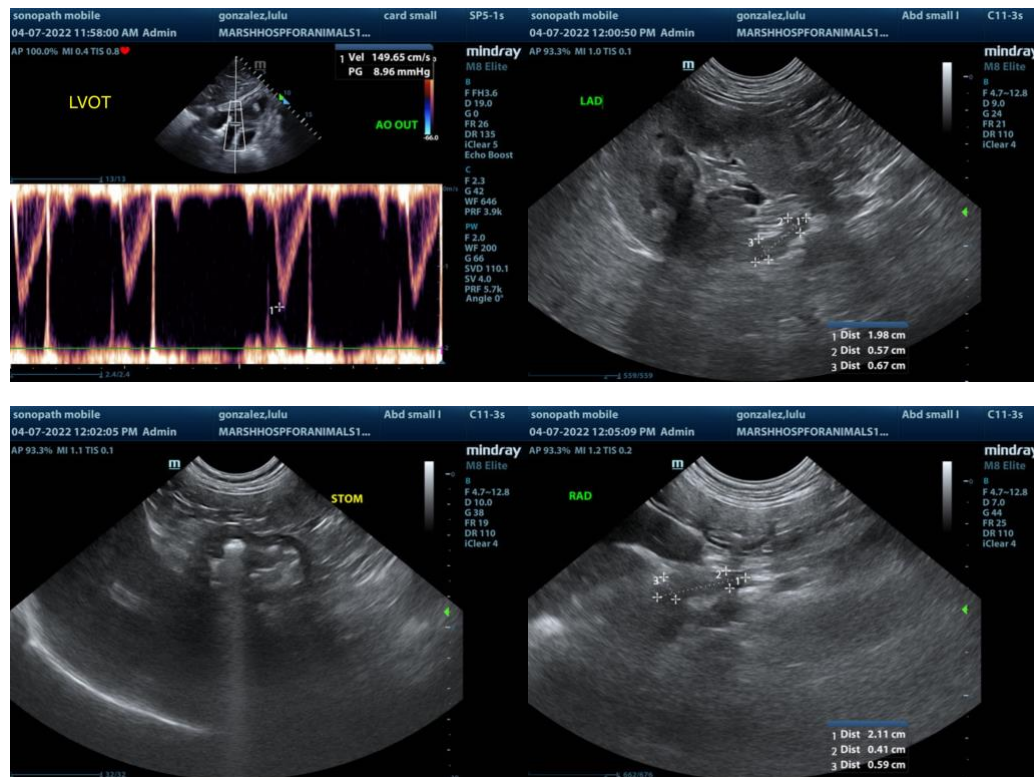
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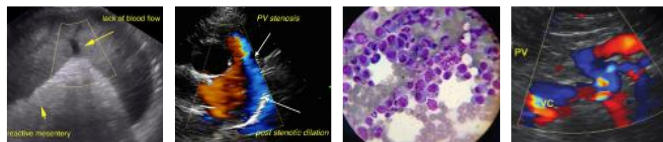
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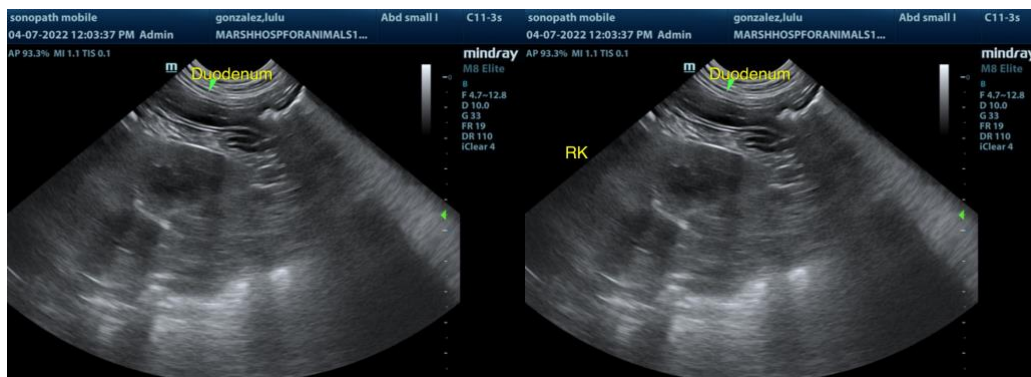
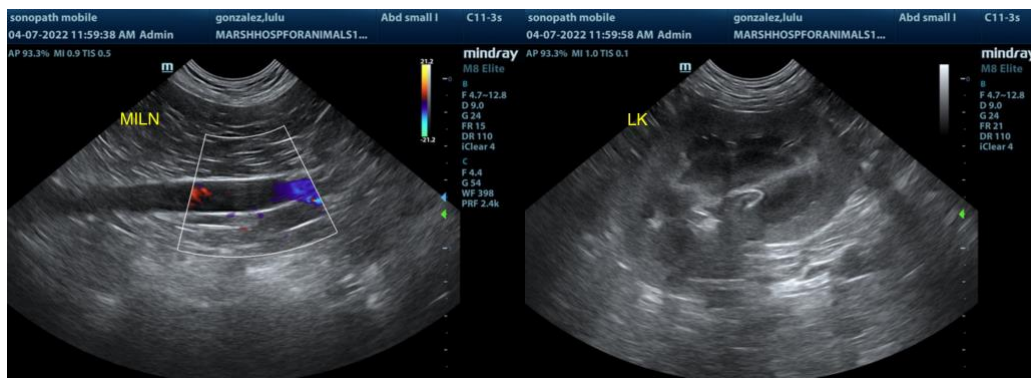
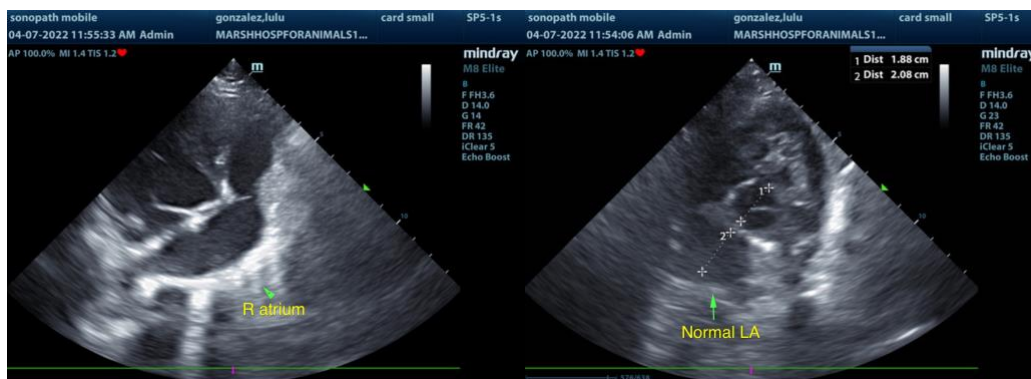
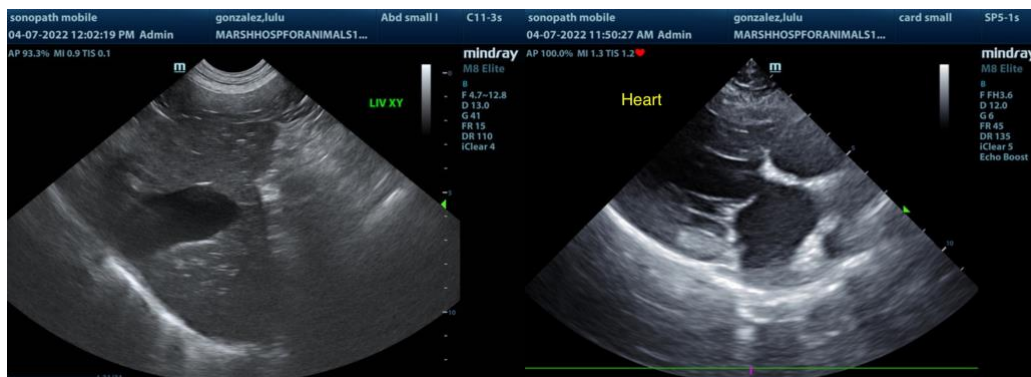
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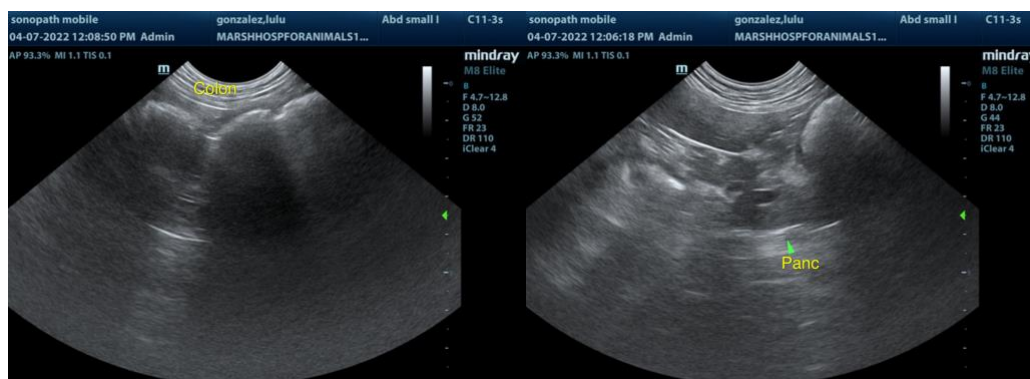
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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