



**PATIENT PRESENTING CLINICAL SIGNS**

Paco Plath 4/6 heart murmur. Anorexia, weight loss.. No meds currently.

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN**

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Neutered Male

**AGE**

14 Years

**WEIGHT**

4.8 kg

| 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                  | 1.25                    | 50                              | 85                                       | 0.24                                     |
| 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                   | 118           | 1.5           | 1.1                 |                         | 2.6                             | 2.6                                      |  |

**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 mild to moderate thickening suggestive of endocardiosis. Doppler indicated mild 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 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.

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

The residual prostate was free of pathology.

The area of the aortic trifurcation was free of pathology.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Crystal Hill

**HOSPITAL NAME**

BPH Ancaster

**REFERRING VET**

Dr. Pandya

**INVOICE**

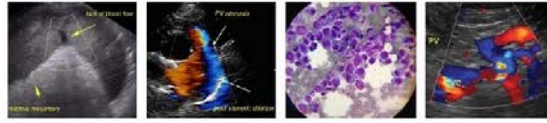
43163

**DATE**

12/2/22



|  |  |
|--|--|
| <b>PATIENT</b>   | Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and loss of corticomedullary symmetry and definition expected for the age of the patient. Mild pyelectasia noted in both kidneys. The left kidney measured 3.4 cm. The right kidney measured 3.3 cm.  |
| Paco Plath   |  |
| <b>SPECIES</b>   | <b>Adrenal Glands</b>  |
| Canine   | Both adrenal glands were overtly normal in size, position, and shape. The left adrenal gland measured 1.2 cm long x 0.60 cm at the caudal pole. The right adrenal gland measured 1.4 cm long x 0.48 cm at the caudal pole.   |
| <b>BREED</b>   | <b>Spleen</b>  |
| Chihuahua  | The spleen was indistinctly visualized. No overt pathology in the area of the spleen.  |
| <b>SEX</b>   | <b>Liver</b>   |
| Neutered Male  | The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and mild parenchymal remodeling. 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. |
| <b>AGE</b>   |  |
| 14 Years   |  |
| <b>WEIGHT</b>  | <b>Gastrointestinal</b>  |
| 4.8 kg   | 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.   |
| <b>INTERPRETED BY</b>                                    | 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 ileus, obstruction or foreign material.   |
| R. McKenzie Daniel,<br>DVM, DABVP<br>(Canine and Feline) | Normal visible colon wall layers were present with apparent formed feces in lumen.   |
| <b>IMAGING PERFORMED BY</b>                              | <b>Pancreas</b>  |
| Crystal Hill   | The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.   |
| <b>HOSPITAL NAME</b>                                     | <b>Free Abdomen</b>  |
| BPH Ancaster   | No omental masses, lymphadenopathy, or peritoneal free fluid.  |
| <b>REFERRING VET</b>                                     | <b>ULTRASONOGRAPHIC FINDINGS</b>   |
| Dr. Pandya   | <ul style="list-style-type: none"> <li>• Chronic mitral valve disease (ACVIM B1)</li> <li>• Bilateral chronic renal changes with minor pyelectasia</li> <li>• Sonographically unremarkable gastrointestinal tract</li> </ul>   |
| <b>INVOICE</b>   | <b>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</b>  |
| 43163  | The lack of left atrial or left ventricular enlargement indicates that the risk of current or future complications secondary to MR is relatively low. No indication for cardiac medications. Conservative monitoring of the murmur at this stage would be appropriate. However, prognosis is variable. Recheck echocardiogram in 6 months, sooner if clinical signs arise.   |
| <b>DATE</b>  |  |
| 12/2/22  |  |



**PATIENT**

Largely mild geriatric abdomen without evidence of significant abdominal visceral pathology.

Paco Plath

The pyelectasia may be owing to chronic renal changes, potential pelvic scarring possibly owing to previous calculi passage, IV fluid therapy (if applicable).

**SPECIES**

Canine

A definitive cause for the patient's clinical signs was not overtly evident. A GI panel to include PLI/TLI/Cobalamin/Folate as well as three view chest radiographs and neurological examination are recommended to assess for or rule out occult disease which may cause weight loss. As needed gastrointestinal supportive care recommended. Potential assessment for competitive eating involvement or caloric plane may be considered. Correlation with full CBC/Chem panel and urinalysis recommended.

**BREED**

Chihuahua

No evidence of intraabdominal neoplastic criteria.

**SEX**

Neutered Male

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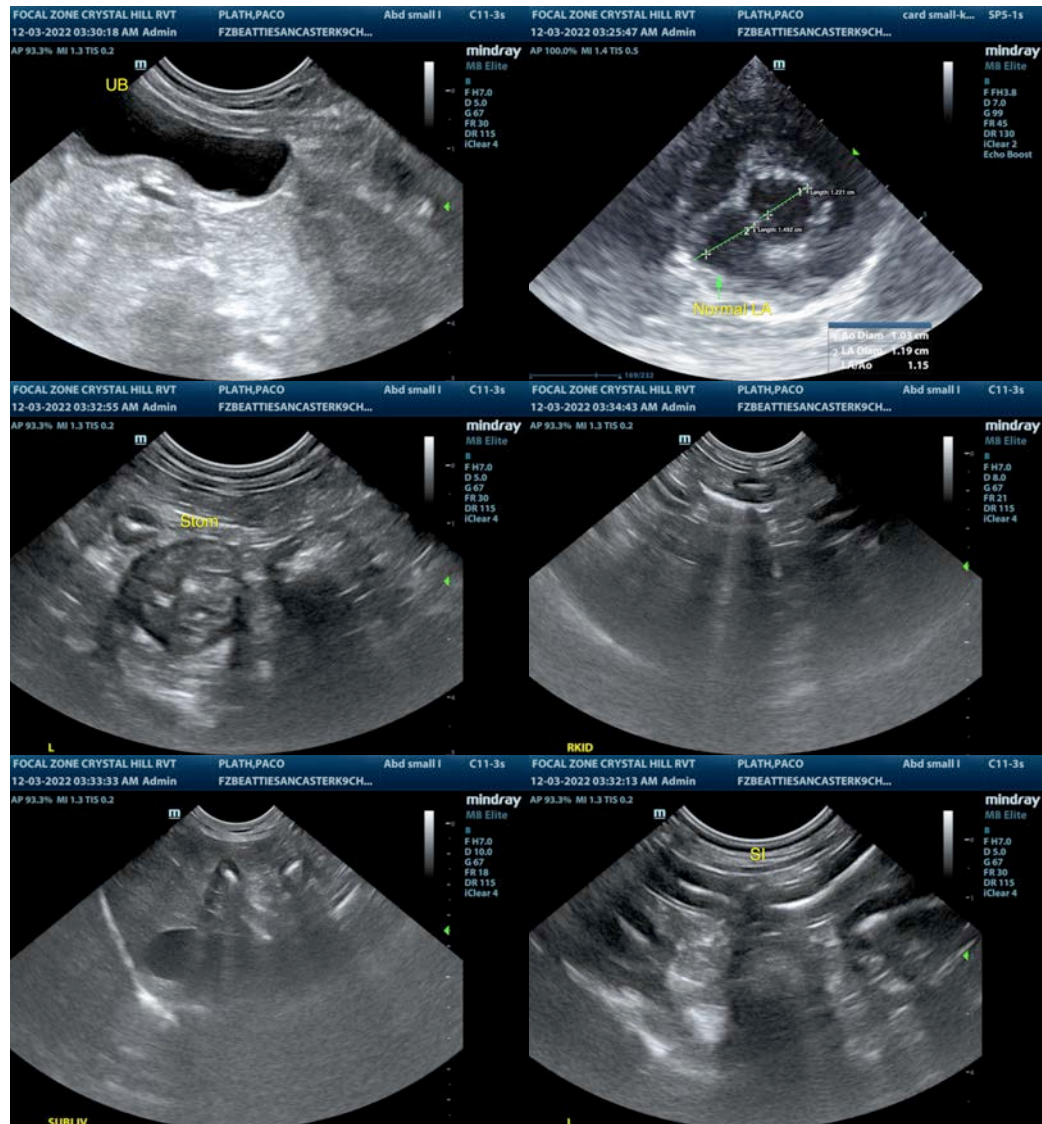
Dr. Pandya

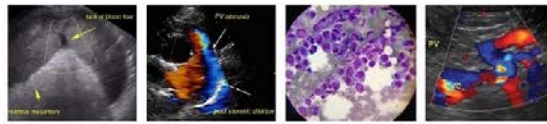
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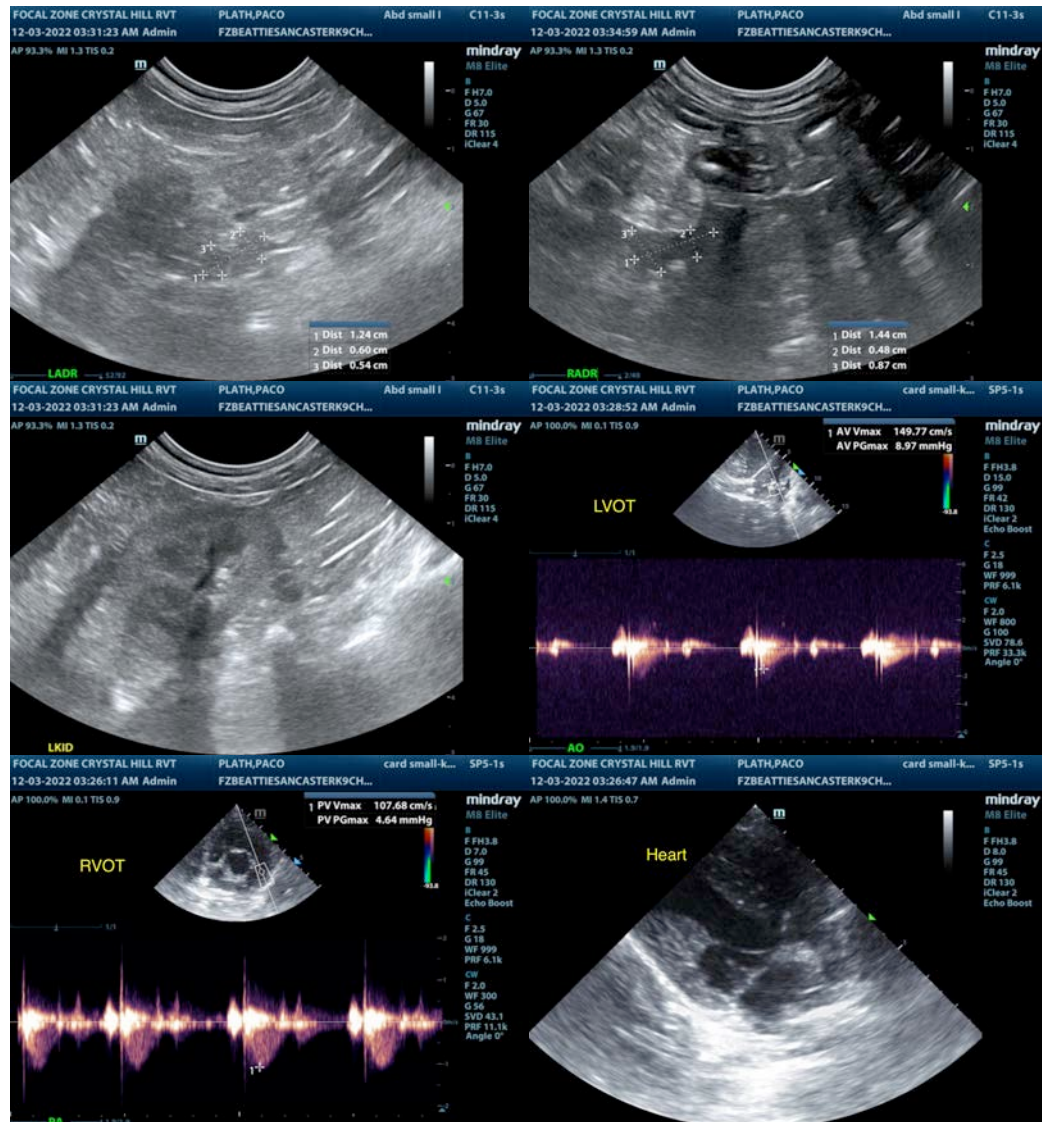
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**

info@SonoPath.com