



**PATIENT**

Gizmo Stevens

**SPECIES**

Canine

**BREED**

GDS X

**SEX**

MN

**AGE**

8 years

**WEIGHT**

30 kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Sarah Barhelemy

**HOSPITAL NAME**

Aspen AH

**REFERRING VET**

Dr. Ross

**INVOICE**

15372

**DATE**

11/3/22

**PRESENTING CLINICAL SIGNS**

Mildly reduced total protein with low normal globulins.  
Abnormal PE/Chem/CBC/UA Results: Mild hypoproteinemia.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**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 was noted.

The area of the residual prostate was free of overt pathology.

The area of the aortic trifurcation was free of pathology.

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 5.6 cm in length. The right kidney measured 6.3 cm in length.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.59 cm width at the caudal pole and 0.46 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.52 cm width at the caudal pole and 0.62 cm width at the cranial pole.

**Spleen**

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.

**Liver/ Gallbladder**

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 containing mild, dependent, mildly congealed, hyperechoic, luminal gallbladder debris. No evidence of gallbladder or peripheral gallbladder inflammatory criteria was noted. The cystic and common bile ducts were normal.

**Gastrointestinal**

The stomach exhibited moderate retained hyperechoic ingesta exhibiting subtle progressive distal acoustic shadowing. The gastric fundus and body walls appeared to be sonographically normal.



|  |   |
|--|---|
| <b>PATIENT</b>   | exhibiting intact wall layering. The ventral gastric body wall width measured 0.44 cm. Ill-defined mural thickening was present in the area of the pyloric outflow with evidence of nonhomogeneous mucosal hyperplasia with mural thickening extending into the gastroduodenal junction and likely upper duodenum. Pyloric thickening measured approximately 2.9 cm x 1.9 cm, while overall gastroduodenal junction and likely upper duodenal mural thickening exhibiting indistinct wall layering measured approximately 3.9 cm x 2.7 cm.  |
| Gizmo Stevens  |   |
| <b>SPECIES</b>   |   |
| Canine   |   |
| <b>BREED</b>   | The duodenum distal to the upper duodenum and area of the gastroduodenal junction and upper duodenal thickening was sonographically unremarkable with descending duodenum wall width measuring 0.45 cm. The visualized jejunum and ileum to the level of the colon were sonographically unremarkable with mild segmental to generalized nonshadowing duodenojejunal ingesta / chyme. The jejunum wall measured 0.39 cm width.   |
| GDS X  |   |
| <b>SEX</b>   |   |
| MN   | Normal visible colon wall layers were present with apparent formed feces in lumen.  |
| <b>AGE</b>   | <b><i>Pancreas</i></b>  |
| 8 years  | 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 were evident.  |
| <b>WEIGHT</b>  | <b><i>Free Abdomen</i></b>  |
| 30 kg  | No overt lymphadenopathy or evidence of peritoneal free fluid was present.  |
| <b>INTERPRETED BY</b>                                    | <b>ULTRASONOGRAPHIC FINDINGS</b>  |
| R. McKenzie Daniel,<br>DVM, DABVP<br>(Canine and Feline) | <ul style="list-style-type: none"> <li>• Ill-defined thickened pylorus, gastroduodenal junction, and likely upper duodenum</li> <li>• Moderate retained gastric ingesta</li> <li>• Mild gallbladder debris (non-mucocele)</li> </ul>  |
| <b>IMAGING PERFORMED BY</b>                              | <b><u>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</u></b>  |
| Dr. Sarah Barhelemy                                      | Given the lack of reported gastrointestinal signs including inappetence, vomiting, etc., the ill-defined pyloric, gastroduodenal junction, and upper duodenal thickening did not overtly appear to be completely obstructive to pyloric outflow, yet some degree of delayed gastric emptying is suspected given the presence of gastric ingesta assuming documented NPO. Considerations for the thickened pylorus, gastroduodenal junction, and upper duodenum may include pyloric hyperplasia / hypertrophy, atypical polyploid lesions, nonspecific inflammatory / infectious / granulomatous disease, neoplasia, or other. Endoscopic or surgical biopsies are required for a definitive diagnosis. No overt evidence of regional metastasis or additional abdominal visceral pathology. |
| <b>HOSPITAL NAME</b>                                     | If surgical biopsies are elected, a surgical consult would likely be ideal, given the high potential for possible resection and anastomosis of abnormal tissue at the time of surgery. Three-view chest radiographs are recommended if not done.  |
| Aspen AH   |   |
| <b>REFERRING VET</b>                                     |   |
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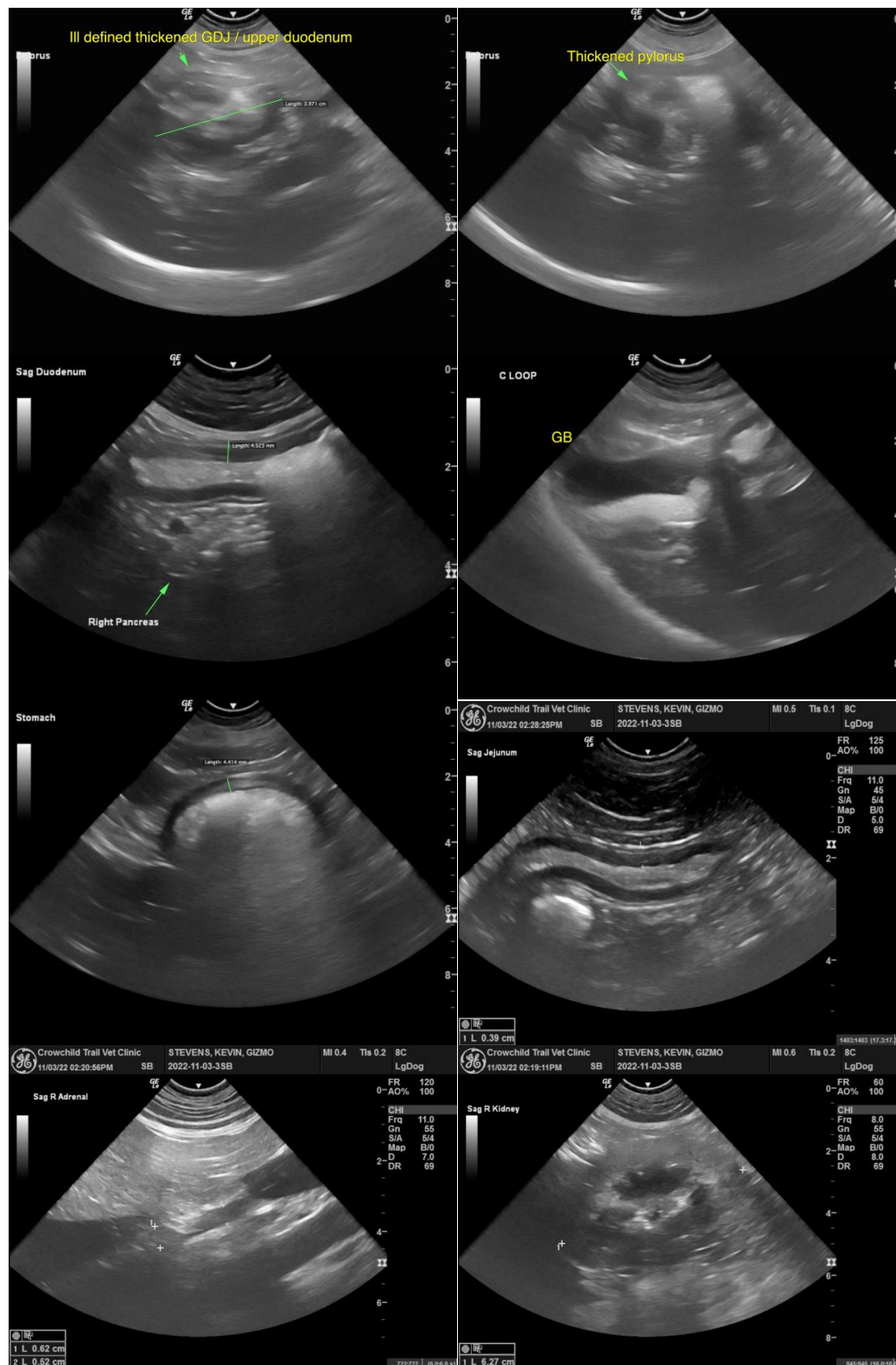
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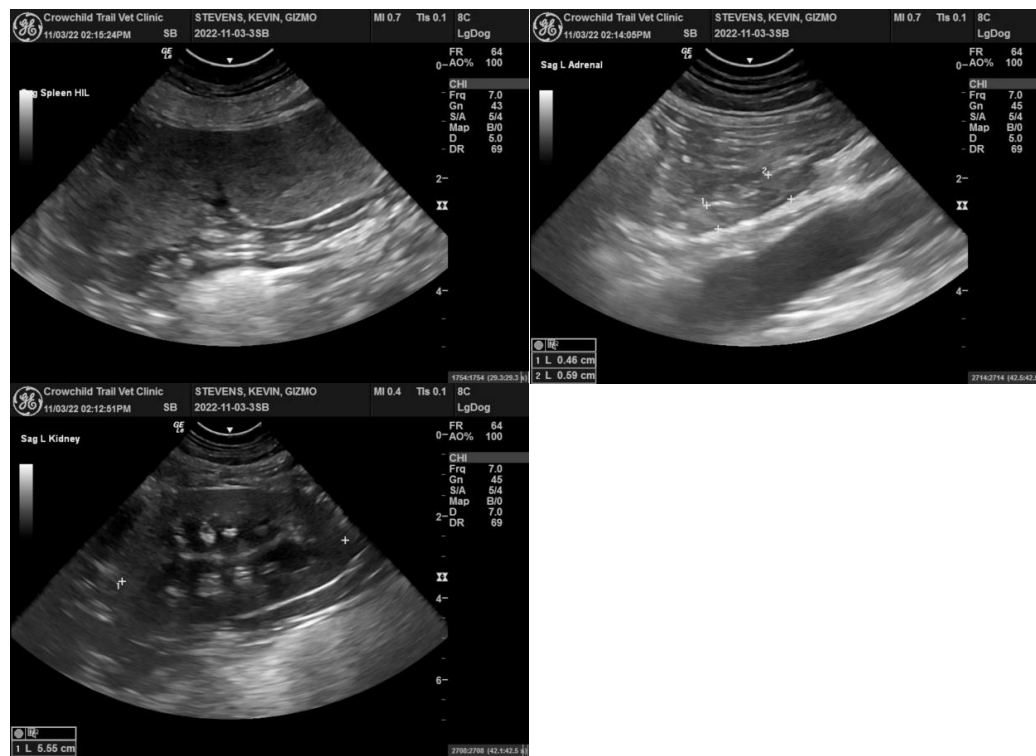
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**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

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