



PATIENT

Gracie Brewer

SPECIES

Canine

BREED

Shetland Sheepdog

SEX

Spayed Female

AGE

13

WEIGHT

21.7

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

**IMAGING
PERFORMED BY**

Dr. Dorris

HOSPITAL NAME

County Line VC

REFERRING VET

Dr. Conway

INVOICE

22935

DATE

6/16/23

PRESENTING CLINICAL SIGNS

History: P has chronic, intermittent diarrhea, partially responsive to antibiotics (metronidazole, tylosin). P also has chronic kidney elevations, stable on Hill's k/d. PE WNL, P getting acupuncture for mobility/suspected arthritis. Pursuing ultrasound to evaluate possible IBD/see if steroids are contraindicated pending kidney evaluation.

Abnormal PE/Chem/CBC/UA Results: See notes.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

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 were noted. Ureteral papillae were normal.

The **kidneys** revealed largely normal structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some moderate 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 his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. Cortical infarct was noted and collapse at the cranial pole of the left kidney. The left kidney measured 3.0 cm. The right kidney measured 1.8 cm, subnormal in size. Cortical remodeling and infarcts were noted in the right kidney.

Adrenal Glands

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 left adrenal gland measured 0.4 cm. The right adrenal gland measured 0.7 cm at the cranial pole and 0.5 cm at the caudal pole.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted. The spleen measured 2.0 cm in width.

Liver

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some minor age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable.



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Gastrointestinal

The **gastrointestinal** presentation revealed mild uniform prominence of the gastric mucosa as well as areas of "ropey" small intestinal wall with slight disruption of the normal 1:3 muscularis/mucosal ratio. The intestinal submucosa was slightly irregular, thickened and hyperechoic suggestive of low grade, chronic disease. No concerning lymphadenopathy was visible. No evidence of obstruction was present. Chronic inflammatory bowel disease is likely with a low possibility of an early neoplastic event such as lymphoma. Full thickness tissue biopsies via open laparotomy, ideally guided by intraoperative ultrasound in order to obtain the most representative mural sample, would be necessary to rule out this possibility. This is a mild change. Soft stool was noted in the colon. Fluid filled cecum was noted.

Pancreas

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.

ULTRASONOGRAPHIC FINDINGS

- Variable small intestinal thickening, fluid filled cecum and soft stool in the colon, likely underlying inflammatory bowel.
- Moderate degenerative renal changes
- Age-related hepatic changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is strong concern for emerging renal failure in this patient given the structural changes and subnormal size.

Differentials for diarrhea include occult parasitism. Dietary indiscretion, dietary intolerance, antibiotic responsive colitis, intestinal dysbiosis and occult Addison's should all be considered as causes of diarrhea in this patient. A hydrolyzed diet trial may be in this patient's best interest +/- probiotics. 24-hour NPO and reintroduction of bland diet indicated. I recommend a baseline cortisol or ACTH stimulation test, a fresh fecal smear and fecal floatation analysis if not already performed.



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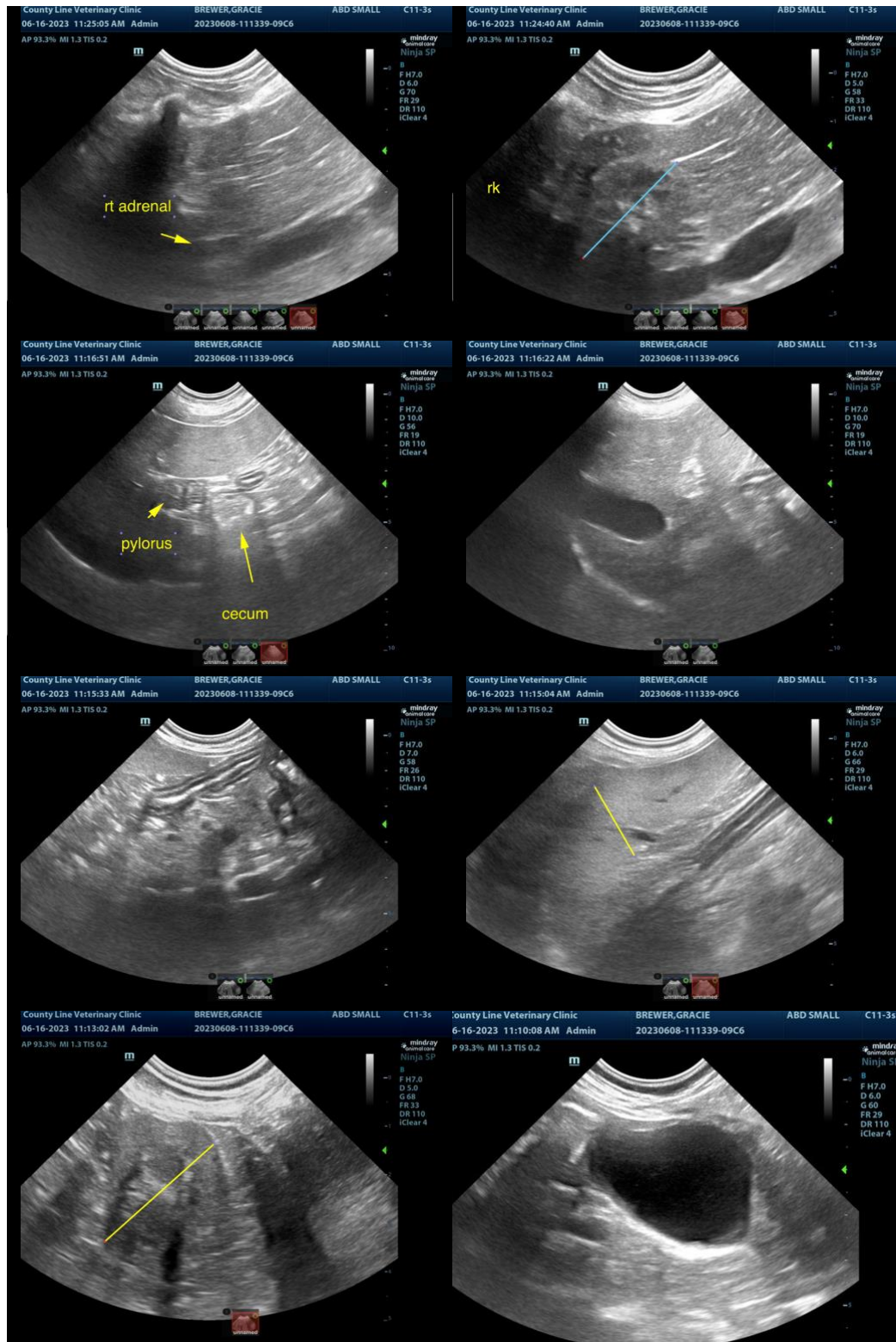
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



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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.

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info@SonoPath.com

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