



PATIENT PRESENTING CLINICAL SIGNS

Abby Given History: Presented 8/3/21 for vomiting, inappetence and diarrhea. Possibly PU/PD, unsure of duration. Ran BW and treated symptomatically with Cerenia, Metronidazole and low fat diet. Patient improved, except still has soft stools. ADR per owner, behavior changes/anxiety. Sedated with Butorphanol IV.

SPECIES PE: mild cranial abdomen discomfort on palpation. ALT 258, ALP 317, Alb 2.9, BUN 17, Glucose 93. UA: SG 1.034, Prot 2+, Ketones Trace, Glucose Neg, Bili 1+. Prev. BW (3/2020) ALT 497, ALP 247, Alb 4.0, BUN 13, Glucose 121, T Bili 0.5.

BREED

Springer Spaniel

SEX

Spayed Female

AGE

13 years

WEIGHT

53 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Ebersole

HOSPITAL NAME

Scanvet

REFERRING VET

Dr. Allen

INVOICE

91160

DATE

8/11/21

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 was noted. Ureteral papillae were normal.

The iliac trifurcation was unremarkable.

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 6.43 cm. The left kidney measured 6.7 cm.

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 0.72 cm at the caudal pole and 0.71 cm at the cranial pole. The right adrenal gland measured 0.5 cm in width.

Spleen

The **spleen** revealed multi-focal hypoechoic nodular changes. The spleen was otherwise normal in size and contour.

Liver

The **liver** revealed multi-focal, heterogenous, coalescing nodular changes with increased portal markings. 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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The **gastrointestinal** tract presented considerable gastric artifact due to the presence of ingesta. This did not permit thorough evaluation of portions of the gastric and upper intestinal structure. No overt abnormality was seen in the visualized tissue, however. This is consistent with a post-prandial presentation within a few hours of mealtime. If the prandial temporal interval does not fit the case history, and the patient presents a history of post-prandial vomiting, this could indicate a delayed upper gastrointestinal outflow due to primary or secondary pyloric hypertrophy, upper GI infiltrative disease, motor deficits, or a non-visualized foreign body. A prudent approach would be to rescan this patient at 24 hour NPO status to further review the non-visible regions if stomach primarily as well as assess any delayed outflow issue.

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

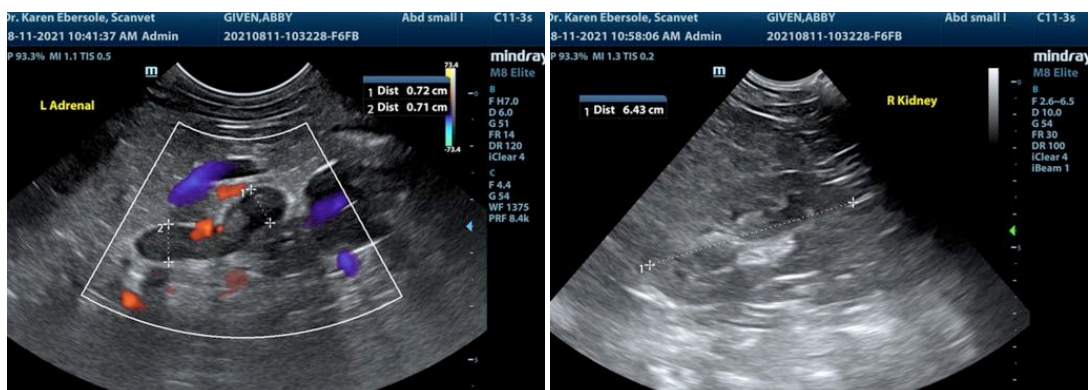
Splenic nodules, likely hyperplasia with the possibility of round cell neoplasia or emerging hemangiosarcoma is less likely.

Diffuse hepatic remodeling and coalescing nodular changes. This is likely fibrosis/emerging cirrhosis. There is a minor potential for neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Bile acid profile is warranted. Core liver biopsy is warranted for structural evaluation. FNA is warranted for any inflammatory cell type and to rule out round cell neoplasia, which is less likely.

I am most concerned about the liver parenchyma in this patient. Liver support protocol is warranted with nutraceuticals and liver oriented diet. More specific therapy will be based on bile acid results and/or sampling.





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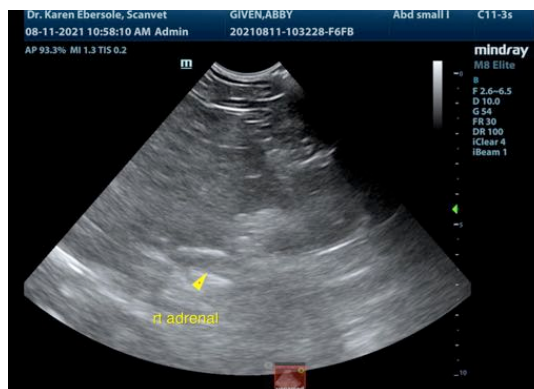
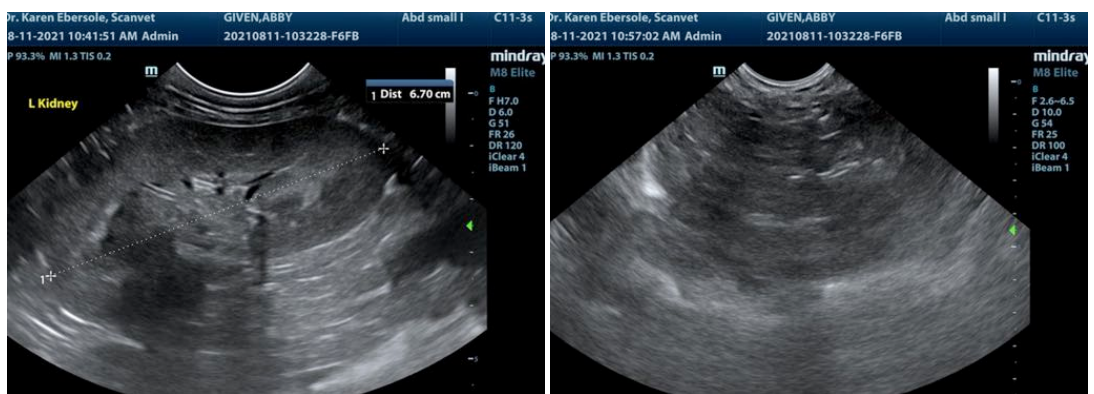
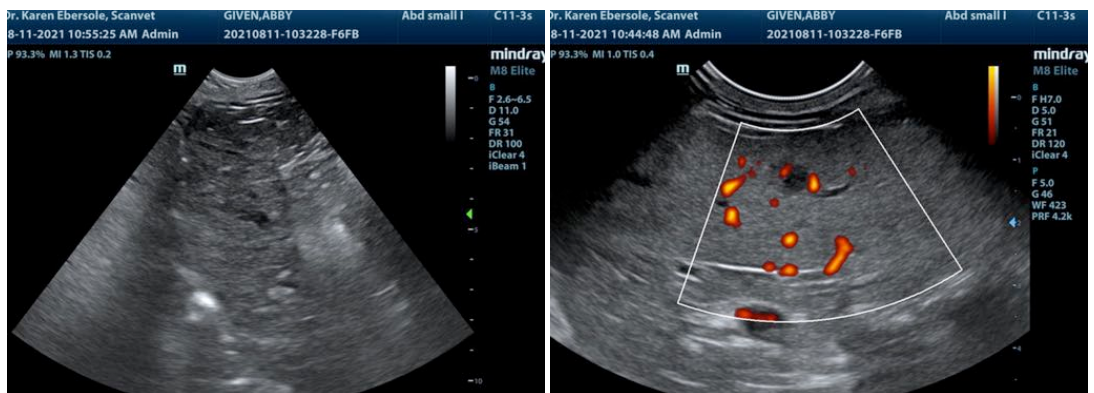
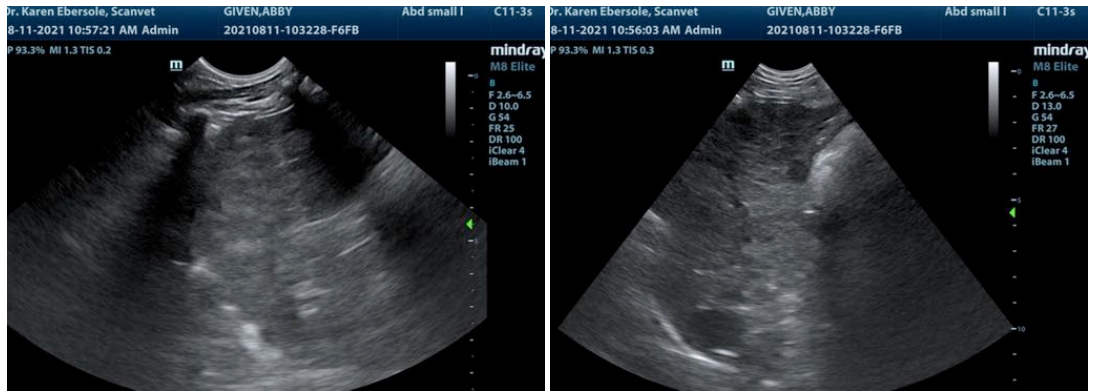
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

SPECIES

Canine

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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