



PATIENT PRESENTING CLINICAL SIGNS

Rusty Hefler Diarrhea x 3 weeks. Hyporexia. Hypoalbuminemia, hypoproteinemia. MCT removed ~ 2 years ago. TP 4.2; Alb 2.2; WBC 23,500. On Tylosin, Vit B12, metronidazole.

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Canine **Urinary System**

BREED 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.

Beagle

SEX The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 0.84 cm in diameter.

MN No evidence of pathology in the area of the iliac trifurcation, including no evidence of medial iliac or sublumbar lymphadenopathy.

AGE 11 years 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 5.3 cm in length.

WEIGHT

20.5 lbs.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.58 cm width at the caudal pole and 0.56 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 0.53 cm width at the caudal pole and 0.50 cm width at the cranial pole.

Spleen

The spleen was normal in size and contour. Primarily maintained, finely textured, homogeneous parenchyma was present. Focal to intermittent nondisruptive subtly hypoechoic nodules were noted in the spleen, an example measured 0.31 cm in diameter. Splenic vascularity was normal.

Liver/ Gallbladder

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 subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. A solitary nondisruptive uniform, mildly hyperechoic intraparenchymal nodule (1.1 cm in diameter) was noted in the left liver.

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The gallbladder was non distended in size with moderate nondependent nonorganized gallbladder debris. The cystic duct and common bile ducts were normal without evidence of dilation.

DATE

6/9/22

Gastrointestinal

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

IMAGING PERFORMED BY
 Pamela Harrigan, RDCS

HOSPITAL NAME

VCA Hanson AH

REFERRING VET

Thomas Finney, DVM



PATIENT

Rusty Hefler

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.

SPECIES

Canine

The small intestine presented intact yet segmental to generalized prominent wall layering, owing to propensity for mild segmental to generalized prominent mucosa layer. Segmental mild small intestinal mucosal speckling to fogging was present. No evidence of loss of intestinal wall layering or intestinal masses noted. The duodenum wall measured 0.52 cm. The jejunum wall measured 0.33 cm.

BREED

Beagle

The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material. Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

SEX

MN

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.

AGE

11 years

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

WEIGHT

20.5 lbs.

- Intact yet prominent small bowel wall layering, exhibiting segmental mucosal speckling/fogging- nonspecific, potential for inflammatory bowel or emerging PLE, given the hypoproteinemia. No overt evidence of gastrointestinal neoplastic criteria, which is considered less likely.
- Mild hepatic parenchymal remodeling with solitary, subjectively benign nodule- nodule is likely consistent with nodular hyperplasia or lipogranuloma
- Intermittent nonspecific yet nondisruptive splenic nodule- multiple etiologies possible, including focal minor lymphoid hyperplasia, hematopoiesis, small hematomas, splenitis, infarct, while the possibility of emerging primary neoplastic versus metastatic nodules, given the patient's history, cannot be definitively excluded.
- Moderate gallbladder debris (non-mucocele)
- Mild chronic renal changes

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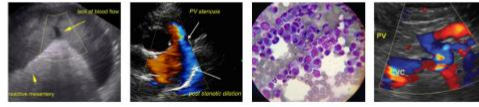
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A GI panel to include PLI/TLI/Cobalamin/Folate is recommended. Fresh fecal analysis, to rule out parasitic ova/Giardia is suggested, if not done. Assuming normal clotting status, ultrasound guided splenic parenchyma and small nodule FNA, if accessible, using a 25-gauge needle, warranted for screening cytology given the patient history. Sonographic monitoring of the spleen would be a more conservative approach. Overtly splenic neoplastic criteria are considered less likely, based on splenic presentation. Intestinal biopsies would be required for a definitive diagnosis. In addition to the current empirical therapy, some or all of the following protocol could be considered.

PLE Therapy



PATIENT

Part or all of this protocol may be considered based on your clinical impression of the patient:

Rusty Hefler

OBJECTIVE: keep albumin levels > 2 g/dl, avoid thromboembolism and cavitory effusions, monitor concurrent PLN (Wheaton Terrier PLE/PLN) and liver disease:

SPECIES

Plasma 10 mL / kilogram IV over 4 hours

Canine

Or **Human albumin** 2 ml/kg/h over 10 hours. Total daily volume 20.l/kg/day

And Colloids/Hetastarch

10 to 20 mL per kilogram per day and dogs

BREED

10 to 15 mL per kilogram per day cats

Beagle

(Can bolus first 1/3 of dose over 15 minutes)

& maintain on LRS maintenance otherwise.

Metronidazole (10-20 mg/kg po bid)

SEX

Famotidine 1 mg/kg lv 1m po dc Sid /bid

MN

Sucralfate 0.5-1 g po tid dogs, 0.5 g bid cats in slurry **Or Misoprostol** 1-5 ug/kg po tid

Diet: Highly digestible high quality protein, low fiber, low fat diet (< 15% of dry matter). Hydrolyzed protein or novel protein. Purina HA or Royal Canine HP or similar.

AGE

Prednisone or prednisolone 2 mg/kg bid x 3-5 days then 2 mg/kg sid. **Chlorambucil** in refractive severe IBD/alimentary lymphoma cases (monitor cbc for rare bone marrow suppression) 4 mg/m² Q 24-48 hours.

11 years

Cobalamine (B12) 250-1500 ug/dog weekly x 6 weeks.

WEIGHT

Calcium supplementation if necessary.

20.5 lbs.

Aspirin 0.5-1 mg/kg/day **or Clopidrel** (Plavix) 1-5 mg/kg/day.

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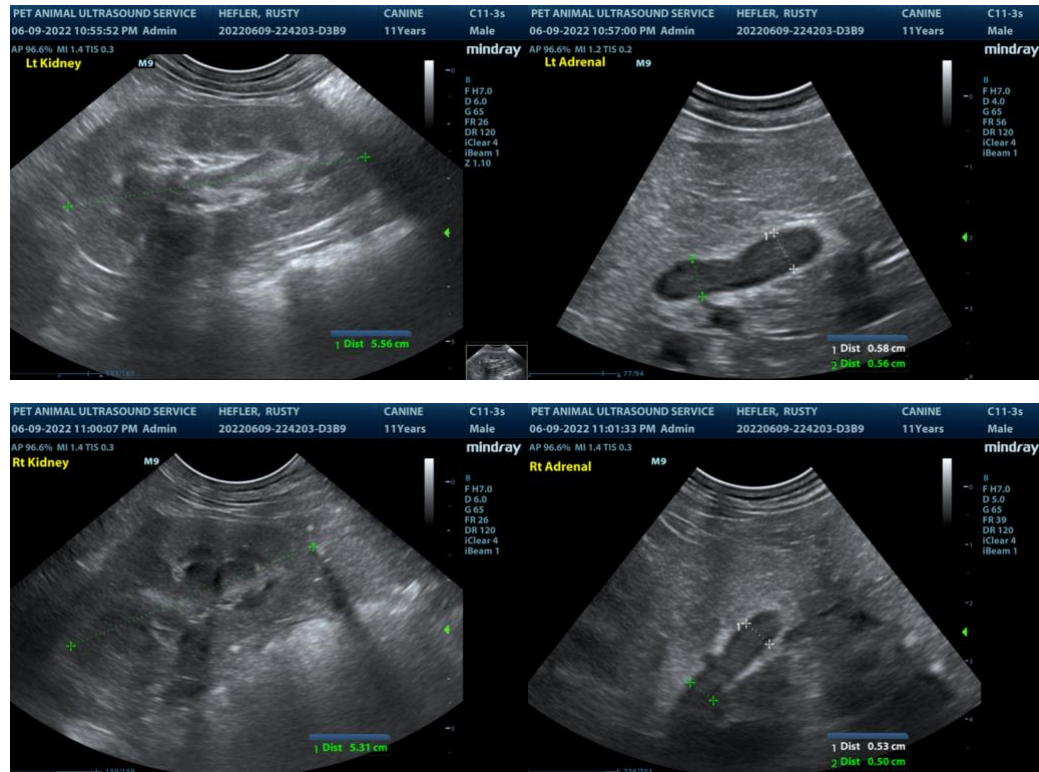
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PATIENT

Rusty Hefler

SPECIES

Canine

BREED

Beagle

SEX

Male

AGE

11 years

WEIGHT

20.5 lbs.

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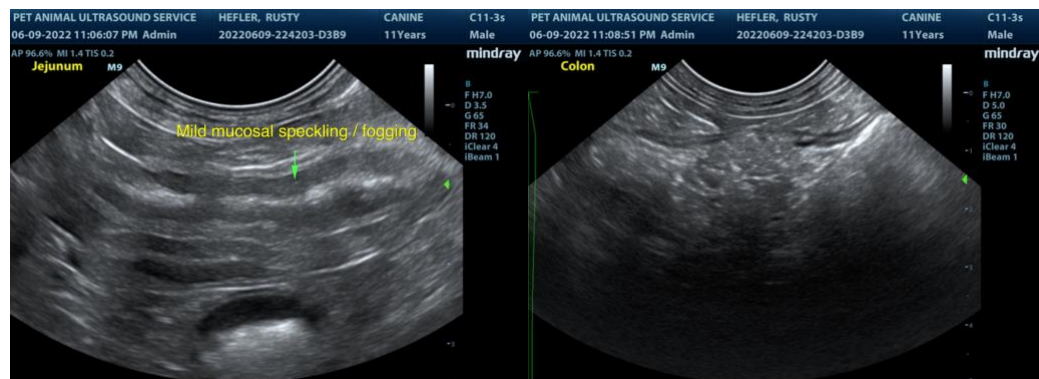
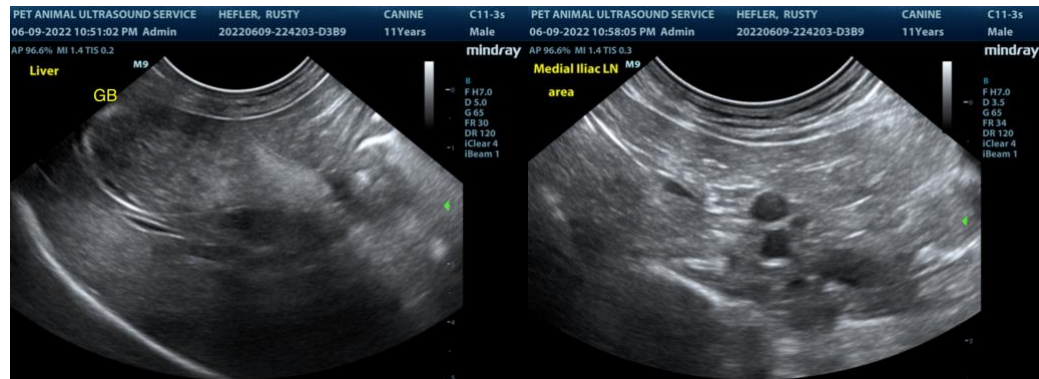
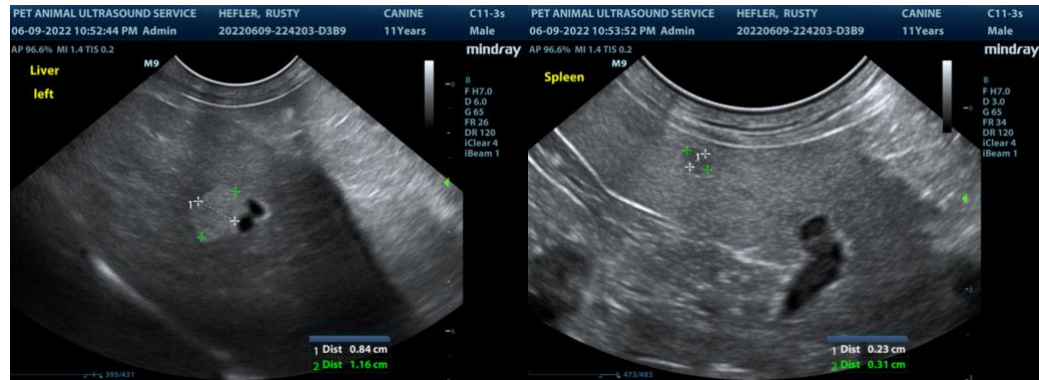
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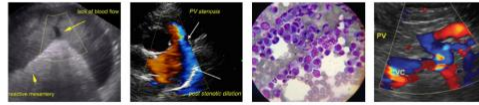
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



PATIENT

Rusty Hefler

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.

SPECIES

Canine

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

BREED

Beagle

SEX

MN

AGE

11 years

WEIGHT

20.5 lbs.

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