


PATIENT

Byron Havenaar

PRESENTING CLINICAL SIGNS

 Poor eater, low body weight. Ongoing gastritis. Given Cerenia, Metonidazole and i/d food.
 Abnormal PE/Chem/CBC/UA Results: n/a

SPECIES

Canine

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.

BREED

Yorkie

SEX

MN

No overt pathology was noted in the area of the residual prostate.

The area of the aortic trifurcation was free of pathology.

AGE

12 years

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 moderate loss of corticomedullary symmetry and definition expected for the age of the patient. Mild bilateral pyelectasia was present. The left kidney measured 4.3 cm in length. The right kidney measured 4.5 cm in length.

WEIGHT

8.6 lbs.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.5 cm length x 0.46 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 1.45 cm length x 0.60 cm width at the caudal pole.

INTERPRETED BY

 R. McKenzie Daniel,
 DVM, DABVP

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.

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

The Maples AH

REFERRING VET

Dr. Kazienko

Liver/ Gallbladder

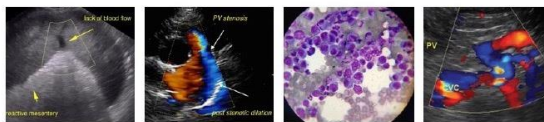
The liver presented mildly enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was mildly distended containing primarily anechoic content with moderate, dependent to nondependent yet nonorganized, hyperechoic luminal debris. The gallbladder walls were sonographically unremarkable without evidence of inflammatory changes. No evidence of peripheral gallbladder inflammation was noted. The common bile duct was normal.

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DATE

3/31/22



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Gastrointestinal

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The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with mild luminal gas with no signs of ileus, obstruction, or foreign material. The ventral gastric body wall width measured 0.40 cm.

SPECIES

Canine

The small intestine exhibited primarily intact wall yet thickened wall layering secondary to propensity for generalized thickened mucosa. The mucosa exhibited generalized mucosal speckling/striations to segmental fogging. Focal area of caudal abdominal small intestine, likely jejunum in location, exhibited a corrugated appearance to the thickened wall layering with indistinct wall layer detail. Potential for emerging segmental mural mass is possible yet not definitive. This segment of intestine measured approximately 4.0-5.0 cm in length with wall width up to 0.8 cm.

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Yorkie

SEX

Normal visible colon wall layers were present with apparent formed feces in lumen.

MN

Pancreas

The pancreas was normal in size and contour with heterogeneous nonuniformly echogenic parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

AGE

12 years

Free Abdomen

Generalized hyperechoic mesentery with small pockets of scant free fluid were present.

WEIGHT

8.6 lbs.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Diffusely thickened small bowel exhibiting generalized mucosal speckling / striations to fogging, possible segmental emerging caudal abdominal intestinal mural mass, although not definitive
- Echogenic to heterogeneous pancreas - potential for chronic pancreatitis or mild fibrosis
- Mild hepatomegaly - subjectively benign
- Moderate gallbladder debris - potential early gallbladder mucocele
- Generalized reactive mesentery and scant peritoneal free fluid

Secondary Findings

- Bilateral chronic renal changes with mild pyelectasia

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the breed, the overall appearance of the small intestine is suggestive of protein-losing enteropathy with underlying primary conditions including chronic inflammatory bowel disease, and lymphangiectasia, while the possibility of infiltrative intestinal disease could be present. Correlation with full CBC/Chemistry panel and urinalysis is recommended. Intestinal biopsies would be ideal for a definitive diagnosis, yet would be contraindicative if albumin level is <2.0.

Pending lab work assessment, some or all of the following protocol could be considered with continued as-needed gastrointestinal support.

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DVM, DABVP

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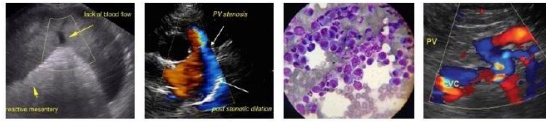
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OBJECTIVE: keep albumin levels > 2 g/dl, avoid thromboembolism and cavitory effusions, monitor concurrent PLN (Wheaton Terrier PLE/PLN) and liver disease:

Plasma 10 mL / kilogram IV over 4 hours

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

10 to 15 mL per kilogram per day cats

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

& maintain on LRS maintenance otherwise.

Metronidazole (10-20 mg/kg po bid)

Famotidine 1 mg/kg Iv Im po dc Sid /bid

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.

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.

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

Calcium supplementation if necessary.

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





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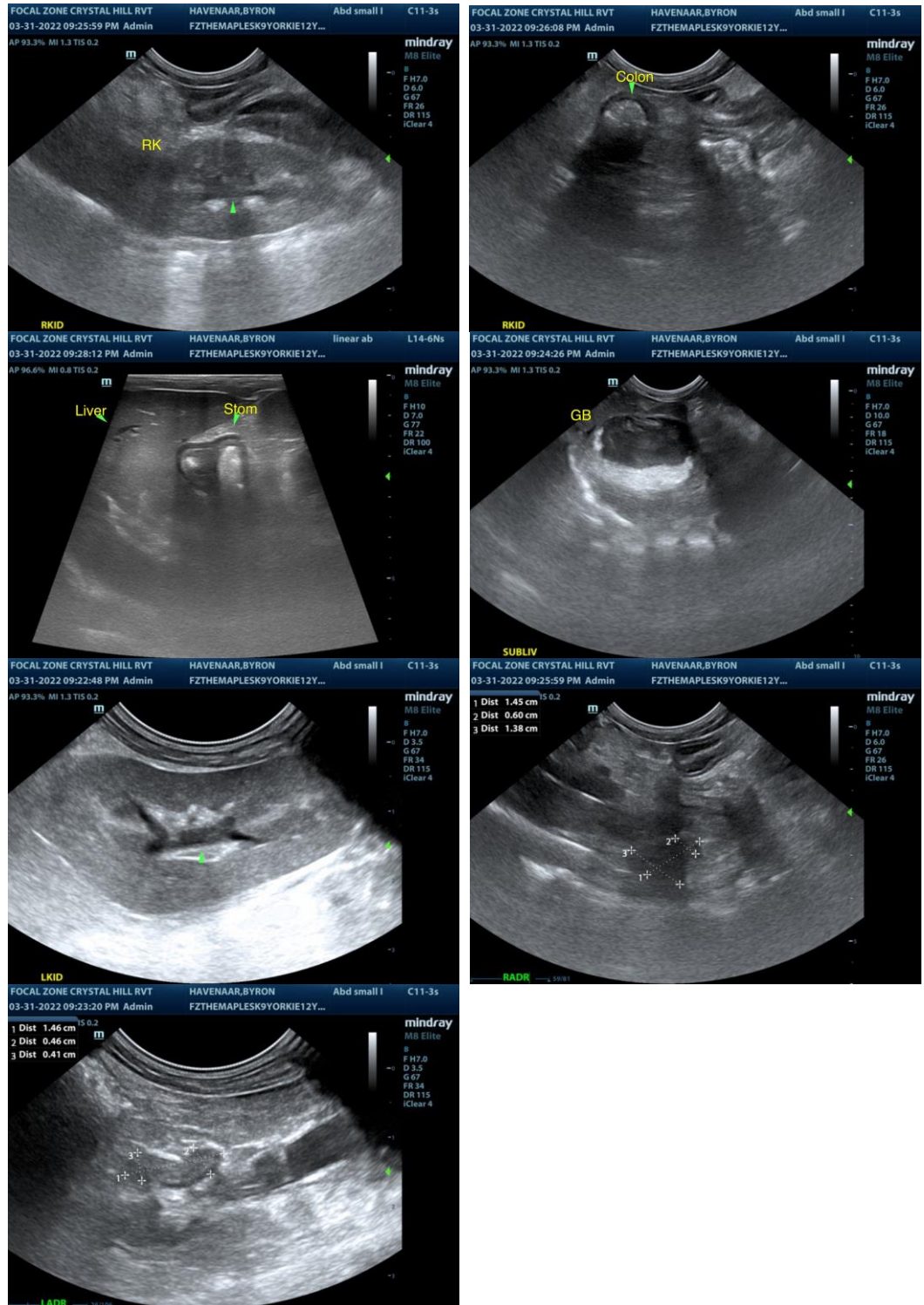
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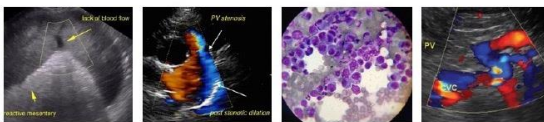
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

BREED

Yorkie

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.

SEX

MN

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

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WEIGHT

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