



PATIENT PRESENTING CLINICAL SIGNS

Jack Hough Low TP, albumin, globulin, only GI symptom is gassiness, steady weight loss

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Canine Urinary System

Canine The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 4.0 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

Pomeranian Mix

SEX

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 0.8 cm in width.

MN

The area of the aortic trifurcation was free of pathology.

AGE

2010

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 mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 4.0 cm in length. The right kidney measured 4.6 cm in length.

WEIGHT

6.8 kg

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.44 cm width at the caudal pole and 0.41 cm width at the cranial pole.

INTERPRETED BY

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

The right adrenal gland was normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The right adrenal gland measured 0.44 cm width in the caudal pole and 0.7 cm width in the cranial pole.

IMAGING PERFORMED BY

Rebekah Jakum, CVT
ARDMS/RVT

Spleen

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Multifocal, well-defined, symmetrical, echogenic nodules were present in the medial parenchyma adjacent to the hilus, consistent with benign myelolipomas. 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 or neoplastic changes were not noted. The echogenic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

HOSPITAL NAME

Abby Road VH

REFERRING VET

Dr. Gerenser

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 with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

INVOICE

13548

DATE

3/21/22



PATIENT *Gastrointestinal*

Jack Hough The stomach presented intact yet subjective mild prominent wall layering with mild gastric gas distention and minor retained fluid in the pylorus.

SPECIES Generalized increased intestinal mucosa echogenicity with segmental mucosa speckling to fogging was present, as well as subjective propensity for mildly prominent segmental muscularis layer. There was no evidence of an obstructive pattern or foreign material. The appearance of the small intestine is most consistent with protein-losing enteropathy or lymphangiectasia. There was no evidence of infiltrative or neoplastic intestinal disease which is considered unlikely but cannot be ruled out without full-thickness or endoscopic biopsies. No overt evidence of loss of intestinal wall layering was noted.

BREED

Pomeranian Mix

Normal visible colon wall layers were present with semi-formed to soft feces in lumen.

SEX

Pancreas

MN

The parenchyma of the pancreas was hyperechoic to adjacent omental fat with diffuse parenchyma remodeling. The capsule of the pancreas was mildly asymmetrical in contour without evidence of peripancreatic inflammation. These changes may suggest chronic inflammation, fibrosis, or saponification if previous history of pancreatitis. No overt signs of pancreatic neoplasia.

AGE

2010

Free Abdomen

WEIGHT

6.8 kg

Peri intestinal reactive mesentery was present. Very scant pockets of peri intestinal free fluid were noted. No evidence of significant lymphadenopathy was evident.

ULTRASONOGRAPHIC FINDINGS

INTERPRETED BY

- Enteropathy exhibiting segmental to generalized mucosal speckling to fogging
- Suspect concurrent chronic pancreatitis, potential for pancreatic fibrosis
- Associated peri intestinal reactive mesentery and scant free fluid
- Benign splenic nodules

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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Even without gastrointestinal signs yet in the face of weight loss with mild panhyperproteinemia and small intestinal presentation, protein-losing enteropathy is likely. Inflammatory bowel disease, lymphangiectasia, and infiltrative intestinal disease i.e., neoplasia, are possible yet thought less likely. Intestinal biopsies would be required for a definitive diagnosis and may be considered if albumin levels (>2.0). A GI panel to include PLI/TLI/Cobalamin/Folate is recommended.

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Some or all of the following protocol may be considered empirically and based on the clinical impression of the patient.

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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

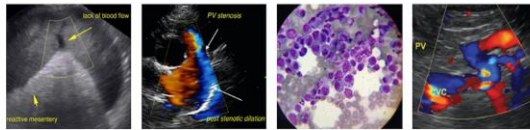
Or **Human albumin** 2 ml/kg/h over 10 hours. Total daily volume 20.l/kg/day

And Colloids/Hetastarch

10 to 20 mL per kilogram per day and dogs

DATE

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PATIENT

Jack Hough

10 to 15 mL per kilogram per day cats
(Can bolus first 1/3 of dose over 15 minutes)
& maintain on LRS maintenance otherwise.

SPECIES

Canine

Metronidazole (10-20 mg/kg po bid)

Famotidine 1 mg/kg lv lm 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.

BREED

Pomeranian Mix

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.

SEX

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

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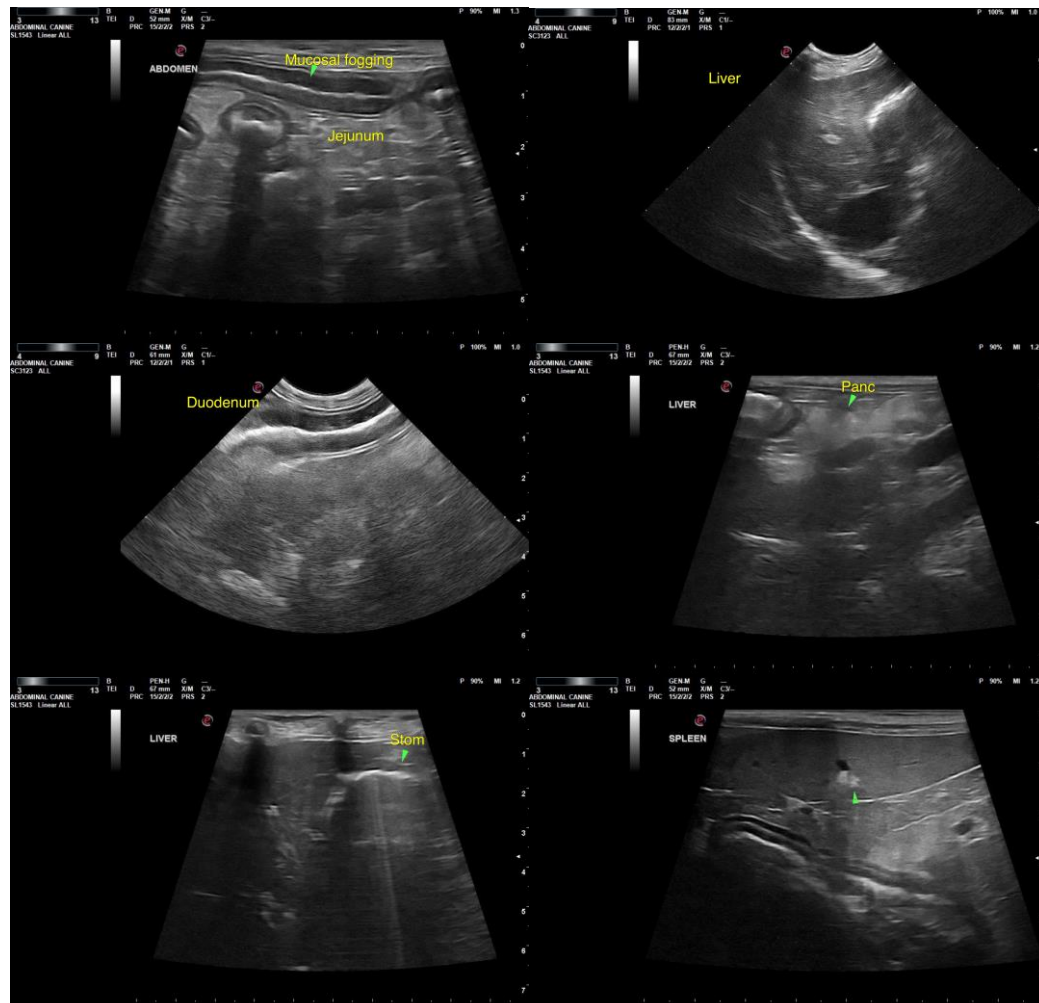
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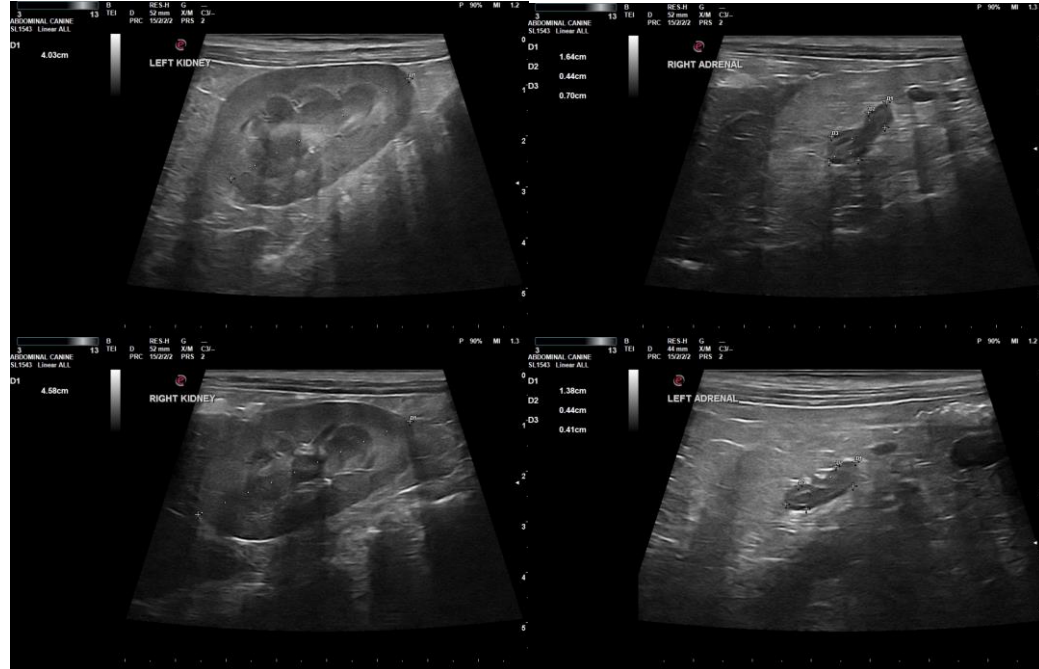
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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