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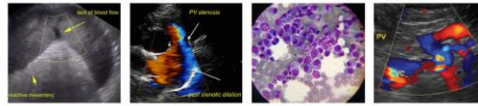


SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT
Bruno Passaro

SPECIES
Canine

BREED
PitBull

SEX
MI

AGE
9yr

WEIGHT
56lb

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

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
East Boston Animal Hospital

REFERRING VET
Dr. Chopra

INVOICE
12355ag

DATE
12/04/2022

PRESENTING CLINICAL SIGNS

Chronic diarrhea and weight loss. Total Protein 3.0, Albumin 2.1, Globulin 0.9, A/G ratio 2.3, Calcium 5.3, Magnesium 0.9, HCT 63. *Sedated with ketamine/dexdomitor for study

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 5 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 were noted.

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 7.5 cm in length. The right kidney measured 7.3 cm in length.

The area of the aortic trifurcation was free of pathology.

Several mildly prominent to enlarged medial iliac lymph nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5). An example of a lymph node measured 0.56 cm. This finding is not consistent with inflammatory or neoplastic criteria.

No evidence of pathology in the area of the prostate.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.72 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 0.77 cm width at the caudal pole.

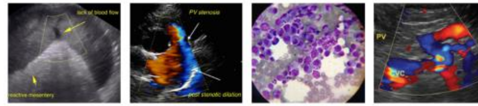
Spleen

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.

Liver

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 with mild non-dependent echogenic non-organized debris. No evidence of gallbladder or peripheral gallbladder inflammation was present. The cystic and common bile ducts were normal.

Gastrointestinal



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The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild to moderate variably echogenic focally hypoechoic non-shadowing ingesta with no signs of ileus, obstruction or foreign material.

Generalized increased intestinal mucosa echogenicity with diffuse mucosa speckling to echogenic mucosal striations/fogging were present. Intestinal wall layering was maintained with mild altered 1:3 muscularis / mucosa ratio. 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. The duodenum wall measured 0.60 cm width. The jejunum wall measured 0.59 cm width.

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

Pancreas

The parenchyma of the pancreas base and right limb 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 there is a previous history of pancreatitis. No overt signs of pancreatic neoplasia. Minor pancreatic duct dilation was present.

Free Abdomen

Intermittent scant pocket of anechoic free fluid was present.

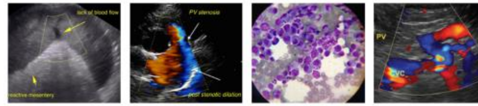
ULTRASONOGRAPHIC FINDINGS

- IBD/PLE small intestinal pattern
- Variable echogenic gastric ingesta
- Mild chronic pancreatitis/fibrosis pattern
- Mild gallbladder debris-incidental assuming no evidence of cholestasis

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Potential for neoplastic infiltrative enteropathy cannot be definitely excluded yet is considered less likely. Intestinal biopsies would be required for a definitive diagnosis yet would be contraindicated if ALB <2.0. A GI panel to include PLI/TLI/Cobalamin/Folate is recommended. A fresh fecal analysis to rule out parasitic ova/giardia is recommended. Part or all of this protocol may be considered based on your clinical impression of the patient:

OBJECTIVE: keep albumin levels > 2 g/dl, avoid thromboembolism and cavitary 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.



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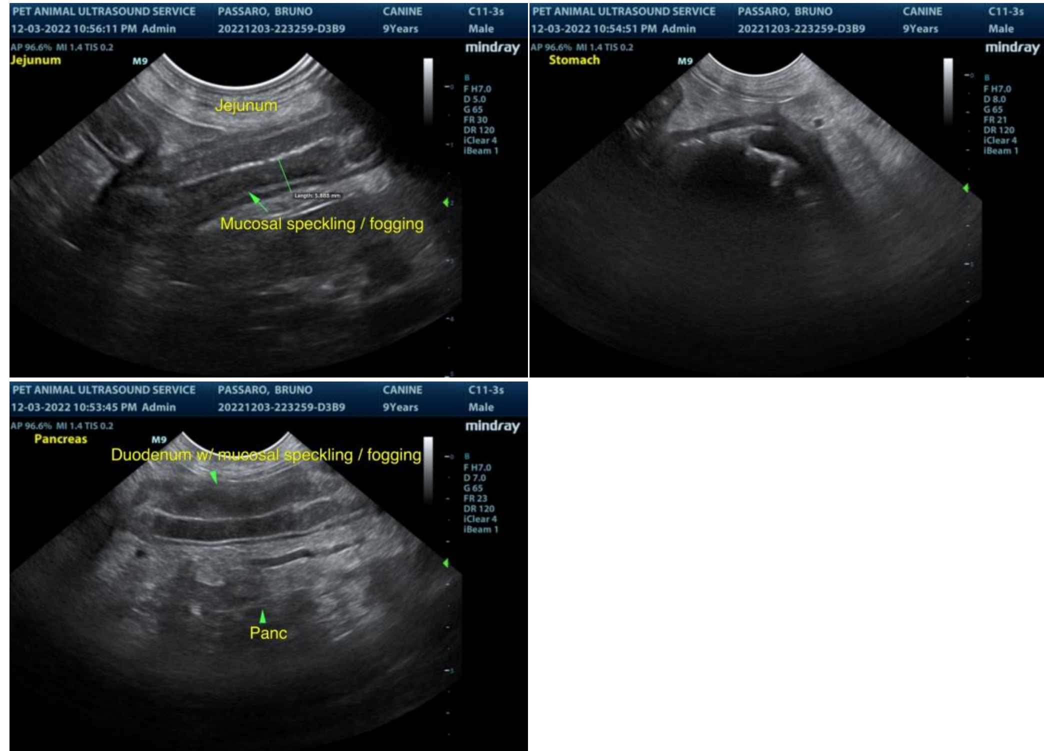
Prednisone or prednisolone 2 mg/kg bid x 3-5 days then 2 mg/kg sid. **Chlorambucil** in refractive severe IBD/alimentary lymphoma cases (monitor cbc for rare bone marrow suppression) 4 mg/m^2 Q 24-48 hours.
Cobalamine (B12) 250-1500 ug/dog weekly x 6 weeks.
Calcium supplementation if necessary.
Aspirin 0.5-1 mg/kg/day **or Clopidrel** (Plavix) 1-5 mg/kg/day.



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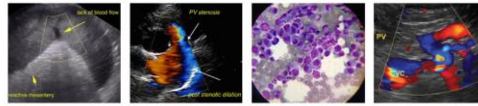

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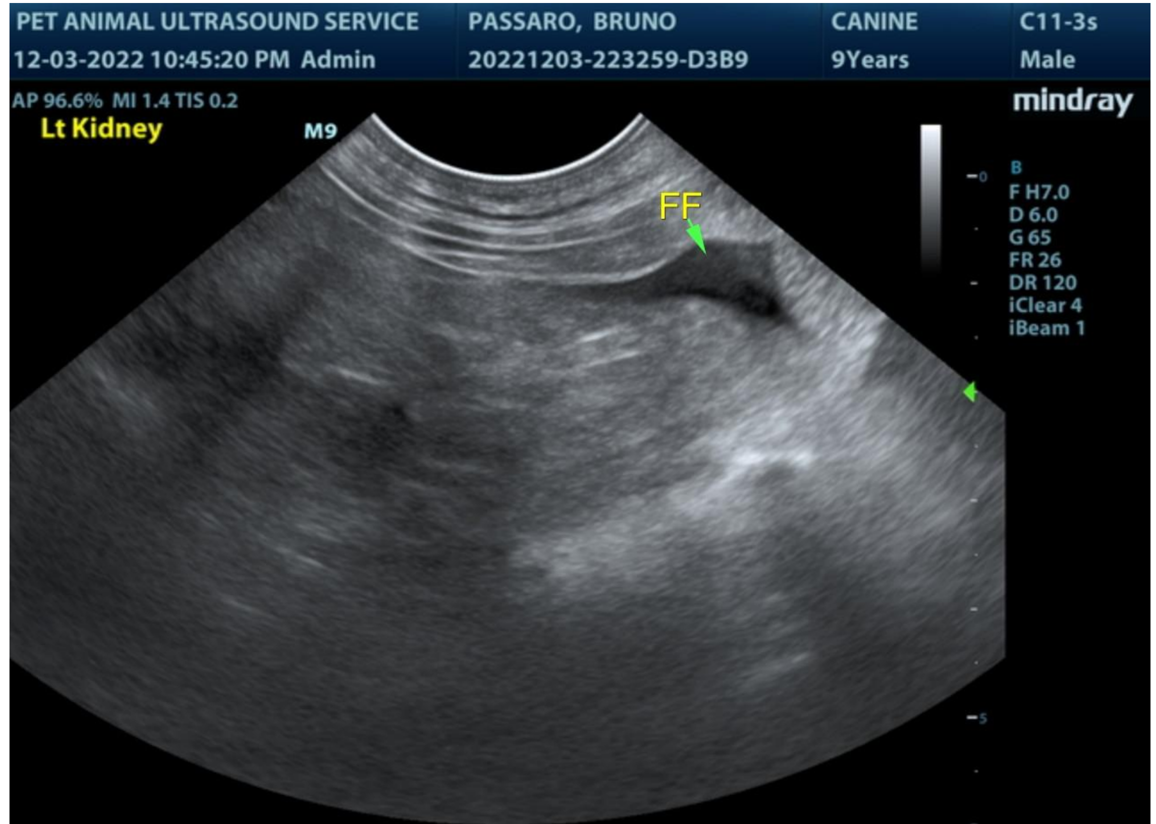

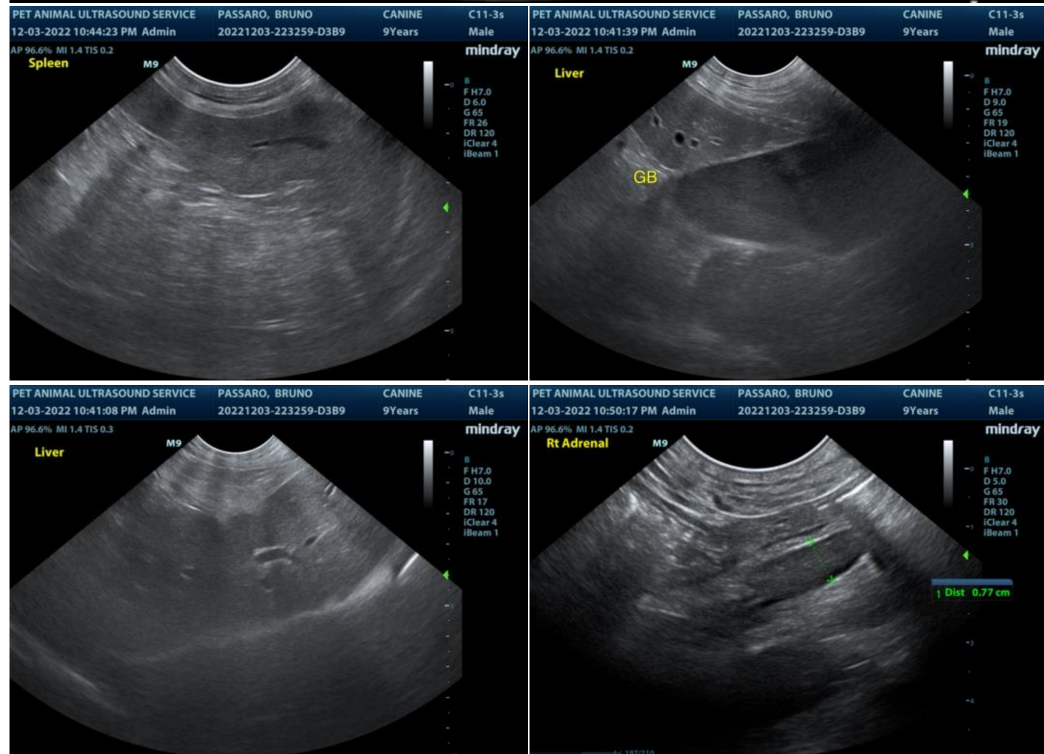

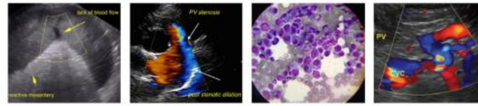

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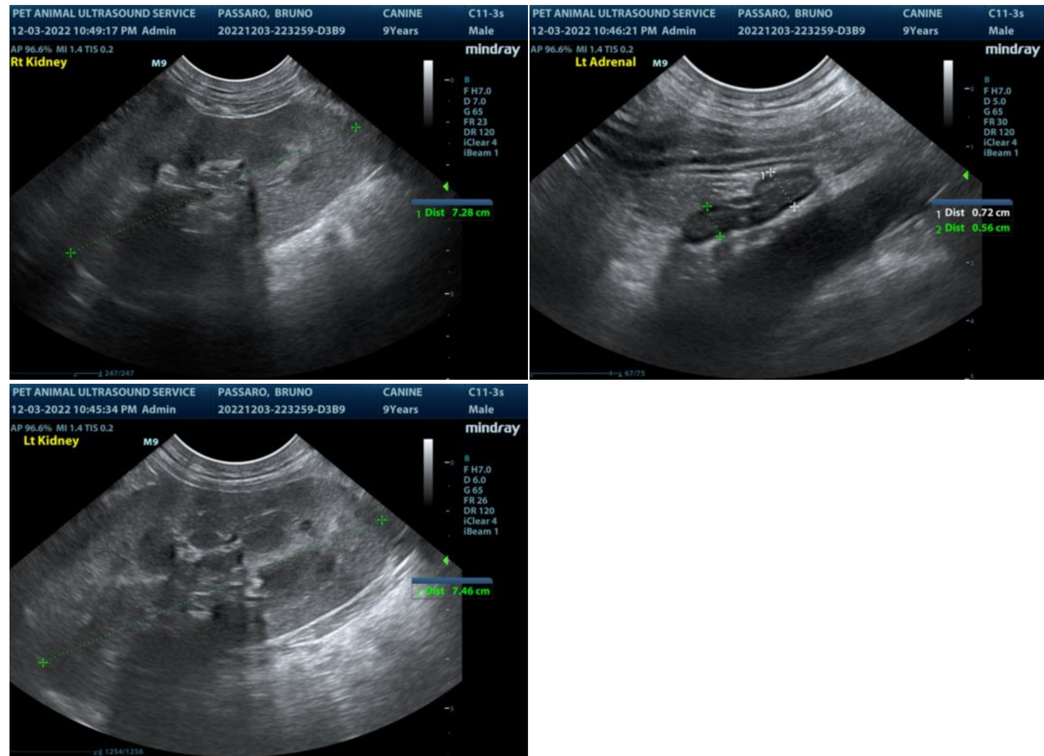

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

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