



**PATIENT**

Banjo DePippo

**SPECIES**

Canine

**BREED**

Pug

**SEX**

MN

**AGE**

10 years

**WEIGHT**

25 lbs.

**INTERPRETED BY**

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

**IMAGING**

**PERFORMED BY**

Karen Ebersole, DVM,  
DABVP (Canine/Feline  
Practice)

**HOSPITAL NAME**

Scanvet

**REFERRING VET**

Dr. Norman

**INVOICE**

16504

**DATE**

4/5/23

**PRESENTING CLINICAL SIGNS**

History of diarrhea which has improved. Currently on metronidazole and probiotic.

Abnormal PE/Chem/CBC/UA Results: PE: corneal sequestrums, rounded abdomen, bilateral hind leg weakness. WBC 28.8, neut 23.09, mono 1.29, Ca 7.9, TP 3.7, alb 1.5, glob 2.2, amylase 1553, lip 348. UA: bili 1 +

**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.

The residual prostate was free of pathology.

The area of the aortic trifurcation was free of pathology.

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 4.5 cm in length. The right kidney measured 4.7 cm in length.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.7 cm length x 0.51 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 1.8 cm length x 0.48 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/ 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 containing primarily anechoic content with minor gallbladder debris. The cystic and common bile ducts were normal.



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**Gastrointestinal**

The stomach exhibited intact variably prominent wall layering. The stomach contained a mild amount of retained anechoic fluid and pockets of gas. The ventral gastric body wall width measured 0.67 cm.

The small intestine presented generalized intact wall layering with propensity for generalized mildly prominent mucosa with mild segmental discrete hyperechoic intestinal mucosal speckling. Minor segmental nonobstructive intestinal ileus was noted.

Normal visible colon wall layers were present with soft fecal matter in lumen.

**Pancreas**

The base of the pancreas and right pancreatic limb presented hypoechoic to heterogeneous echogenicity compared to adjacent omental fat. Mild asymmetrical capsule margination was present with mild variable parenchymal swelling and mild peripancreatic reactivity / inflammation. No overt evidence of neoplasia.

**Free Abdomen**

No evidence of overt omental lymphadenopathy was present. Mild, primarily peri intestinal hyperechoic omentum was noted. An intermittent small pocket of scant peritoneal free fluid was noted.

**ULTRASONOGRAPHIC FINDINGS**

- Prominent gastric walls with minor gastric hypomotility
- Enteropathy exhibiting segmental discrete mucosal speckling and mild nonobstructive segmental ileus
- Soft fecal matter in colon
- Concurrent possible low-grade pancreatitis vs. mild pancreatic edema
- Mild primarily peri intestinal reactive omentum and scant peritoneal free fluid
- Minor gallbladder debris - non-mucocele

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given panhyperproteinemia in conjunction with diarrhea and intestinal appearance, protein-losing enteropathy is likely. Considerations may include inflammatory bowel disease and lymphangiectasia, while the possibility of infiltrative neoplasia cannot be excluded. Further assessment may of the intestine as well as the pancreas may include a GI panel to include PLI/TLI/Cobalamin/Folate. Intestinal biopsies would be required for a definitive diagnosis, yet contraindicated with albumin levels (<2.0). Broad spectrum deworming, i.e., Panacur 50 mg/kg PO SID for at least 5 consecutive days is suggested even if fecal testing is negative. In conjunction with current therapy, some or all of the following protocol may be considered empirically.

**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



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## 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 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

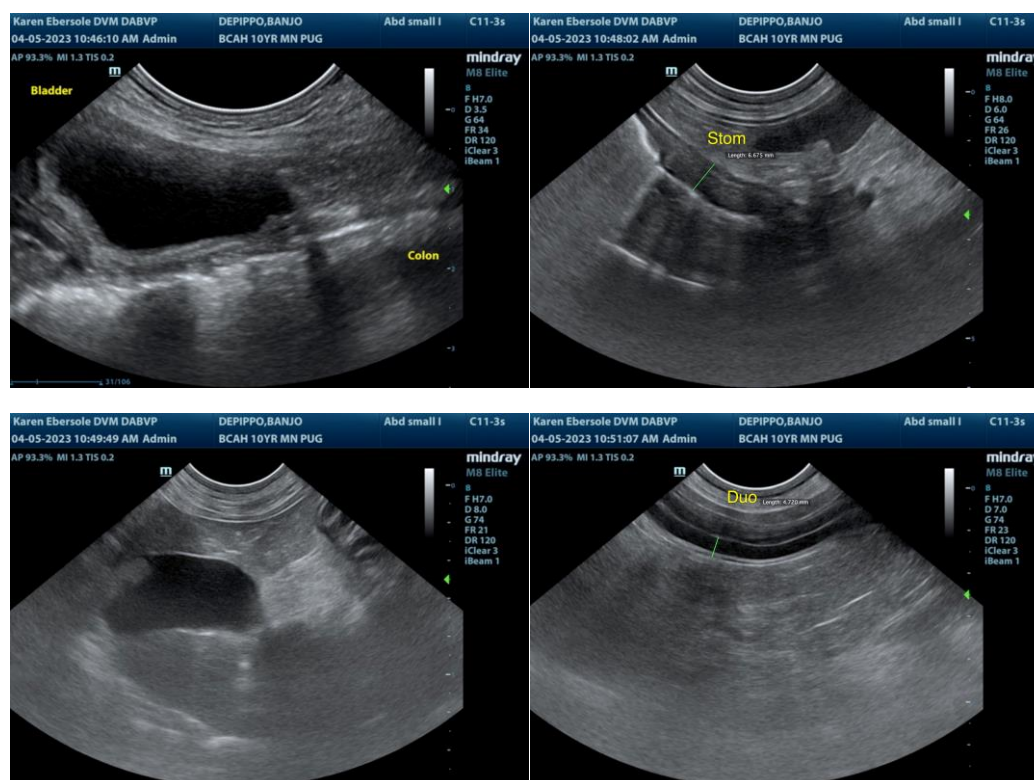
refractive severe IBD/alimentary lymphoma cases (monitor cbc for rare bone marrow

suppression) 4 mg/m<sup>2</sup> 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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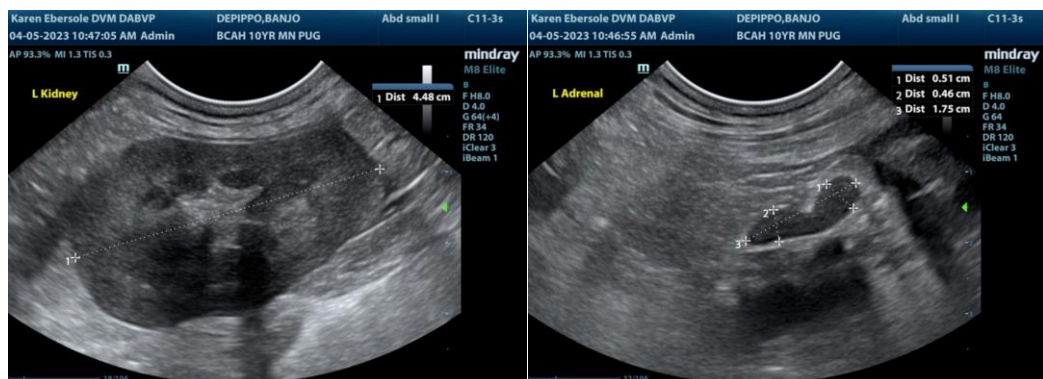
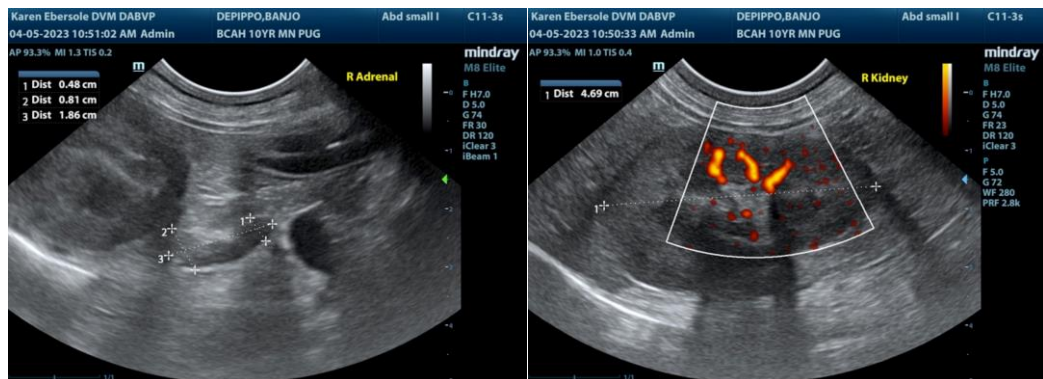
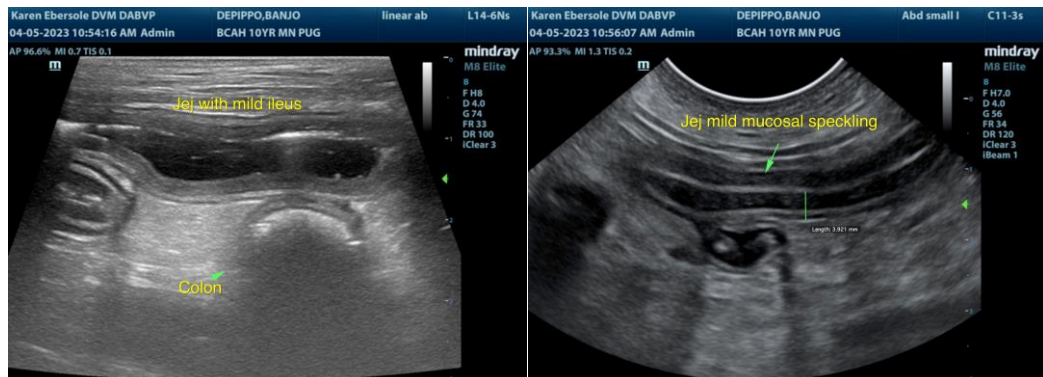
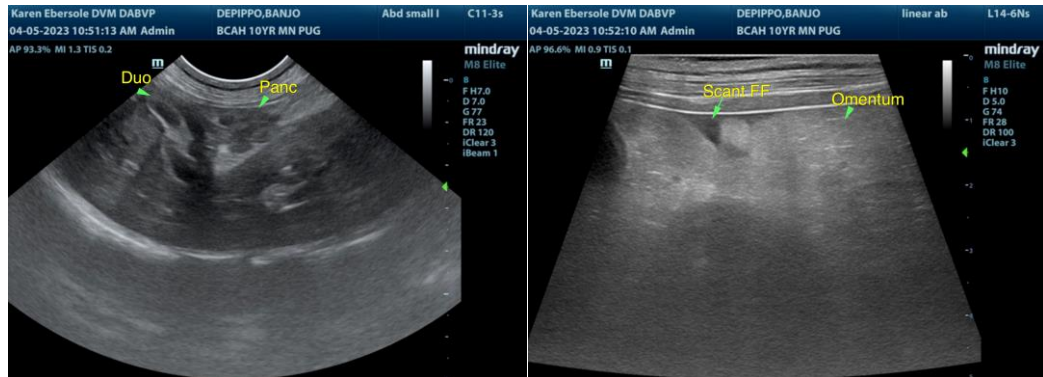
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**INVOICE**

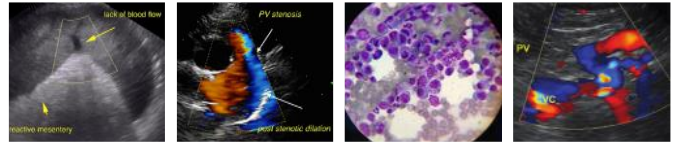
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology



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**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)**  
**info@SonoPath.com**