



**PATIENT PRESENTING CLINICAL SIGNS**

Treasure Duncan History: Seen at rDVM on 1/6/23 for bloated abd - had Alb 1.5, Globs 1.2, else unremarkable CBC / Chem - treated with 14 days pred + metronidazole and signs resolved, then over the past week, abd distended again. No v/d or other symptoms.

**SPECIES**

Canine

**BREED**

Yorkshire Terrier

**SEX**

Neutered Male

**AGE**

10.9 years

**WEIGHT**

8.4 lbs

**INTERPRETED BY**

Tam Mengine, DVM,  
DABVP (canine/feline  
practice)

**IMAGING PERFORMED BY**

Dr. Tam Mengine

**HOSPITAL NAME**

Stoney Creek VH

**REFERRING VET**

Dr. Hazarath Mule

**INVOICE**

12881

**DATE**

4.27.23

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is moderately distended with anechoic urine, and no luminal sediment is present. The ureteral papillae, trigone and pelvic urethra are of normal appearance, and the ureters are not visible (normal). No masses, calculi or mucosal irregularities are noted. Urethra visualized to 1.0 cm.

The prostate is not seen, as the copious ascites has moved it to an intrapelvic location, but the region is unremarkable.

Both kidneys are hyperechoic and exhibit mildly decreased cortico-medullary differentiation. There is no evidence of nephrolithiasis, mineralization, pyelectasia or hydronephrosis. The proximal ureters are not visible (normal). The left kidney is 4.2 cm in length. The right kidney is 4.4 cm in length.

**Adrenal Glands**

The adrenal glands are both identified in their normal locations. They are normal in size and shape with appropriate parenchymal echogenicity and normal phrenic vasculature. The left adrenal gland height is 5.2 mm at the cranial pole and 4.2 mm at the caudal pole. The right adrenal gland height is 3.3 mm at the cranial pole and 4.6 mm at the caudal pole.

**Spleen**

The spleen is of appropriate size and has a normal, homogenous parenchyma with a smooth, continuous capsular surface. The splenic vasculature is normal with no evidence of congestion or thrombosis, and blood flow through the splenic hilus appears normal.

**Liver**

The liver is of appropriate size and shape, with sharp borders and a mildly coarse parenchymal echotexture that is hypoechoic to the spleen. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis.

The gallbladder is moderately distended with anechoic contents. The wall was thin and continuous with no focal lesions. The cystic and common bile ducts are normal / not visible.

**Gastrointestinal**

The stomach is empty. The gastric wall is subjectively normal in thickness, and exhibits appropriate wall layering, but cannot be accurately measured due to normal deviations of the rugal folds. The pylorus is of normal appearance.

The visualized portions of the duodenum, jejunum, and ileum are of normal thickness with intact wall layering that exhibits the appropriate 1:3 muscularis to mucosa ratio. There is diffuse mucosal fogging and speckling present throughout the small bowel. The duodenum is diffusely corrugated. The duodenal wall measures 5.0 mm. The jejunal wall measures up to 3.6 mm. Intestinal motility appears normal.

The visible portions of the colon are of normal thickness, up to 1.18 mm, with intact wall layering. The ileocecal junction is visualized and appears normal.



**PATIENT** *Pancreas*

Treasure Duncan

The areas of the limbs and body of the pancreas are isoechoic to the surrounding mesenteric fat, with normal capsular appearance. There is no evidence of peripancreatic inflammation. The pancreatic duct appears normal.

**SPECIES** *Free Abdomen*

Canine

There is a large amount of hypoechoic free fluid present throughout the peritoneal cavity. The omentum and intra-abdominal fat are hyperechoic. Enlarged abdominal lymph nodes are not observed. The aortic trifurcation has normal blood flow with no evidence of thrombosis.

**BREED**

Yorkshire Terrier

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

**SEX**

Neutered Male

- Large amount of ascites
- Diffuse small intestinal changes consistent with lymphangiectasia

**Secondary Findings**

**AGE**

10.9 years

- Chronic renal changes

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**WEIGHT**

8.4 lbs

The changes in the small intestines are consistent with protein losing enteropathy. Recommendations include:

- Fecal parasite testing and empiric fenbendazole treatment
- Trials with an ultra-low-fat diet. Some patients may require a hydrolyzed diet, if not responding to initial therapy.
- A complete GI panel, or empiric cobalamin supplementation
- A resting cortisol level would be ideal to rule out Addison's Disease. However, in this patient, the disease is most likely associated with his breed.
- Empiric therapy with prednisolone at 2-4mg /kg initial dose should be instituted if biopsies are not pursued.
- Clopidogrel at 1-2mg/kg once daily if albumin levels are <2.0
- Abdominocentesis could be performed for patient comfort if needed.
- Plasma or colloid therapy if clinically significant pleural effusion is present.
- Definitive diagnosis would require biopsy of the affected tissue, ideally with intra-operative ultrasonographic guidance. If there is concurrent lymphadenopathy, ultrasound-guided sampling of the lymph node using a 25 or 22g needle could be considered.

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The changes in the kidneys are consistent with chronic renal disease. Findings should be correlated with laboratory values, IRIS staging and clinical signs.

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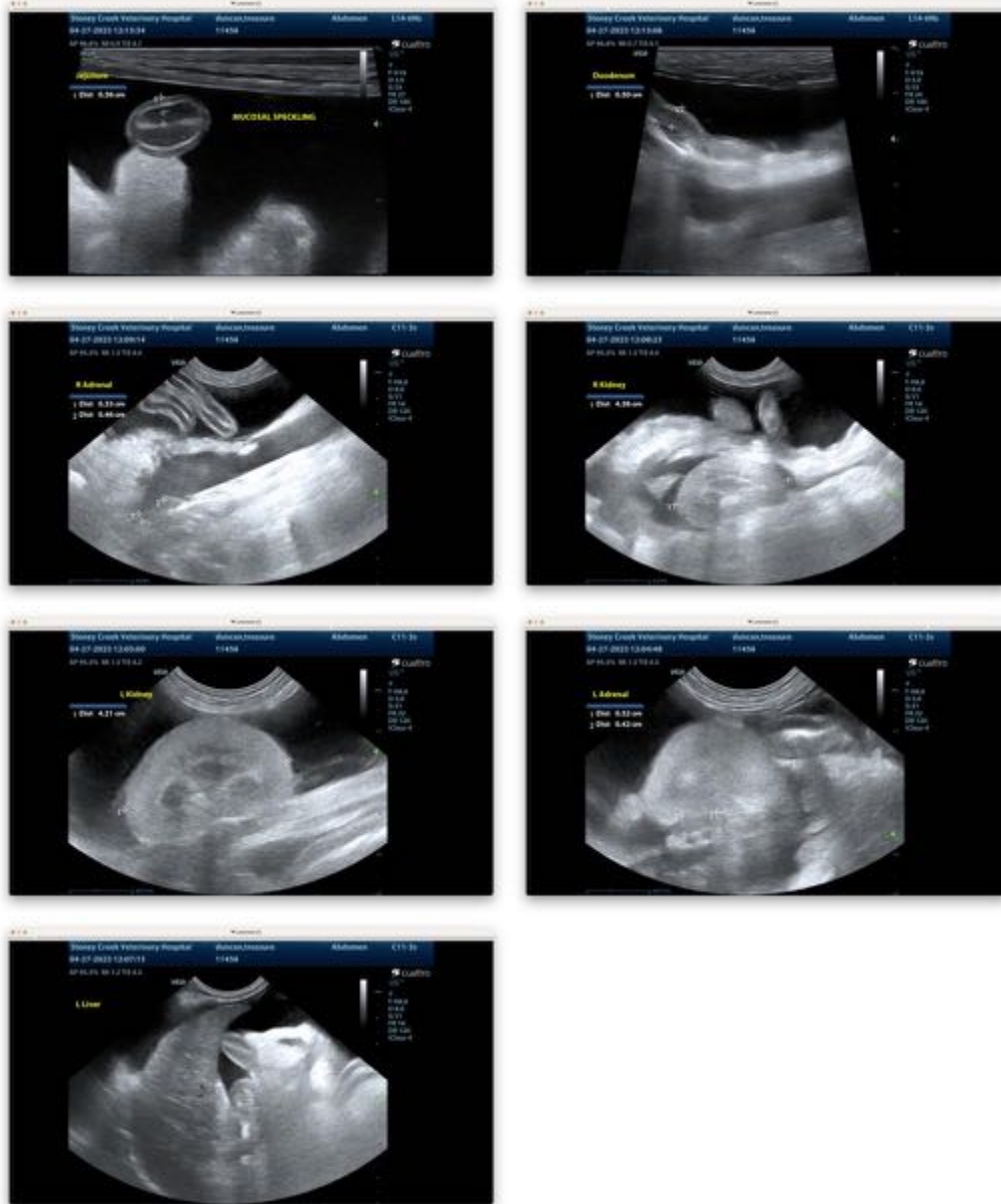
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Tam Mengine, DVM, DABVP (canine/feline practice) info@SonoPath.com