



PATIENT PRESENTING CLINICAL SIGNS

Stella Duffy
History: Presented for decreased appetite for 2 months, diarrhea and vomiting for 1.5 weeks, QAR to BAR on exam, mm pale pink, cranial abdominal palpation feels "full", suspect hepatomegaly, mild tensing. Has been on Sulcrate.

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: High lymphocytes, high MCV, high SDMA, Calcium low, Total protein low, Albumin low, Globulin low, Albumin/Globulin ratio low, ALK PHOS high, Total Bili high, Cholesterol low.

BREED

Doberman X

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

SEX

Spayed Female

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

AGE

9 Years

Left kidney is normal in size (5.91 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

WEIGHT

32.4 kg

Right kidney is normal in size (7.33 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Adrenal Glands

INTERPRETED BY

Beth Johnson, DVM
DACVIM

Left adrenal gland is small (flattened contour). Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. Left adrenal gland measures 0.41 cm at cranial pole and 0.63 cm at caudal pole.

IMAGING

PERFORMED BY

Crystal Hill

Right adrenal gland is unable to be well visualized in these images.

HOSPITAL NAME

Chippawa AH

Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

REFERRING VET

Dr. Van Leeuwen

Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

INVOICE

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Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

DATE

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The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.



PATIENT

Stella Duffy

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease. Thorough detailed bowel wall evaluation was difficult in these images and subtle mucosal speckling or other signs of lymphangiectasia can't be definitively ruled out.

SPECIES

Canine

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

BREED

Doberman X

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

SEX

Spayed Female

Free Abdomen

A small to moderate amount of anechoic free fluid was noted. There is no apparent lymphadenopathy.

AGE

9 Years

ULTRASONOGRAPHIC FINDINGS

- Subjectively flat adrenal glands – This can be a normal patient variant and/or a sign of exogenous cortisol administration. If exogenous steroids are not being administered, hypoadrenocorticism (either relative or absolute) should be considered.
- A small to moderate amount of free fluid in these images is likely secondary to the reported hypoalbuminemia.

WEIGHT

32.4 kg

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

INTERPRETED BY

Beth Johnson, DVM
DACVIM

Relatively normal appearing bowel does not rule out a protein losing enteropathy, and given this patients history, that is a concern, therefore, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

IMAGING PERFORMED BY

Crystal Hill

A baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.

HOSPITAL NAME

Chippawa AH

Pending results, ideally, biopsies of the GI tract are recommended to definitively diagnose and therefore manage the infiltrative bowel process.

REFERRING VET

Dr. Van Leeuwen

To rule out concurrent proteinuria as a contributing factor to this patients hypoalbuminemia, if not recently evaluated, urinalysis and, if indicated based on urinalysis results, urine culture is recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

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If biopsies cannot be obtained safely due to low albumin or patient stability, etc., empirical therapies could include diet change to an ultra-low-fat diet, empirical deworming with a 5-day course of Panacur, cobalamin supplementation (unless cobalamin level is evaluated and supplementation is not warranted) a probiotic and prednisolone (if not contraindicated based on patient contraindications, co-morbidities, etc.). Calcium monitoring, and supplementation, if necessary, is also recommended.

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Additionally, if patient's coagulation status is otherwise appropriate, anti-thrombotics such as clopidogrel or low dose aspirin may also be warranted.



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Crystal Hill

HOSPITAL NAME

Chippawa AH

REFERRING VET

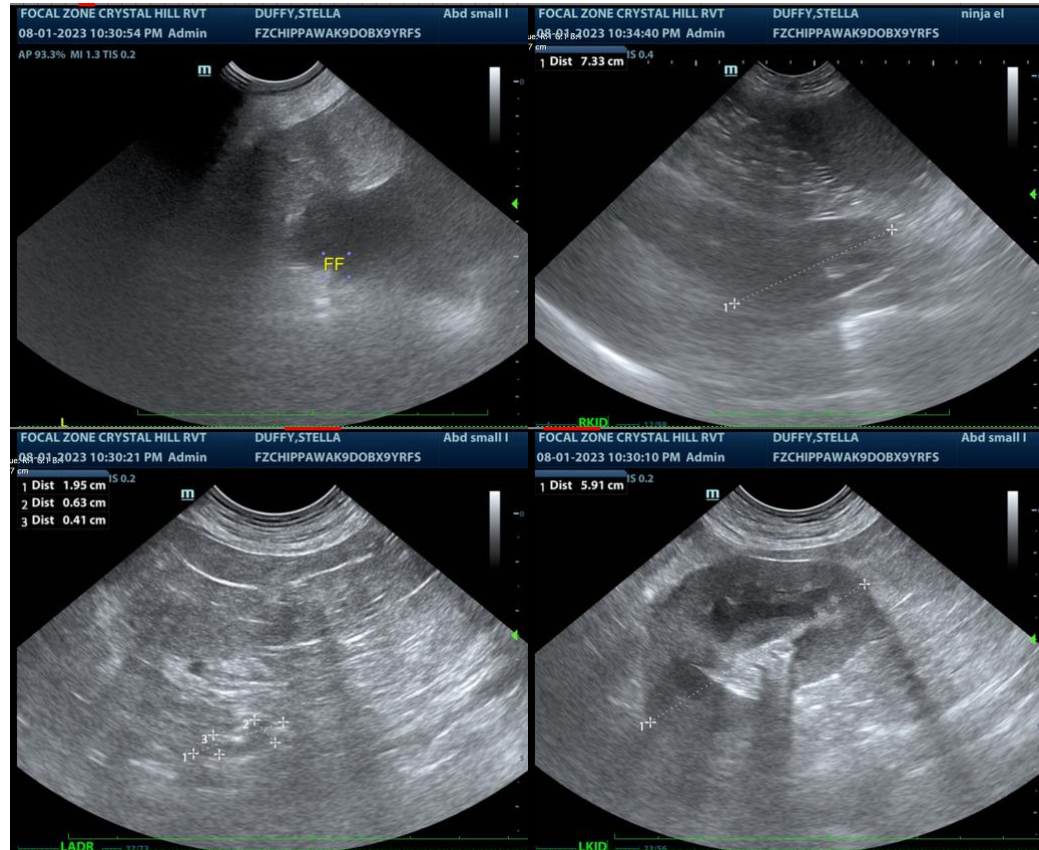
Dr. Van Leeuwen

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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.

Beth Johnson, DVM DACVIM

Info@SonoPath.com