



PATIENT	PRESENTING CLINICAL SIGNS
Lacie Tyson	History: Lacey has a history of intermittent vomiting and diarrhea - she vomits 3-4x a week, usually undigested food. She also has diarrhea - one day it will be pudding-like consistency, then normal BM's for a day or two. She has a good appetite. She has had a few urinary accidents in the house.
SPECIES	Abnormal PE/Chem/CBC/UA Results: Calcium 6.7 (8.4 - 11.8 mg/dL) Total Protein 2.9 (5.5 - 7.5 g/dL)
Canine	Albumin 1.2 (2.7 - 3.9 g/dL) Globulin 1.7 (2.4 - 4.0 g/dL) Potassium 3.8 (4.0 - 5.4 mmol/L) ALT 149 (18 - 121 U/L) AST 84 (16 - 55 U/L)
BREED	ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN
Jack Russell Terrier Mix	Urinary System
SEX	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.
Spayed female	Left kidney is normal is size (5.2 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.
AGE	Right kidney is normal is size (5.4 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.
11 years	Adrenal Glands
WEIGHT	Left adrenal gland is normal in size (0.5 cm at cranial pole and 0.56 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.
20.4 lbs	Right adrenal gland is normal in size (1.0 cm at cranial pole and 0.34 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.
INTERPRETED BY	Spleen
Beth Johnson, DVM DACVIM	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.
IMAGING PERFORMED BY	Liver
Jack Reese	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.
HOSPITAL NAME	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.
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PATIENT	<i>Gastrointestinal</i>
Lacie Tyson	The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with fluid and echogenic contents consistent with debris.
SPECIES	Small intestine is diffusely mildly thick with a relatively thick mucosa compared to other layers. Normal wall layering is preserved; however, the mucosa is more echogenic than normal and contains hyperechoic striations perpendicular to the lumen. The lumen of the small intestine is empty with no evidence of obstruction or foreign material.
Canine	
BREED	The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.
Jack Russell Terrier Mix	
SEX	<i>Pancreas</i>
Spayed female	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.
AGE	
11 years	
WEIGHT	<i>Free Abdomen</i>
20.4 lbs	A small to moderate amount of anechoic free fluid is noted, consistent with the patient's albuminemia. There is no apparent lymphadenopathy noted in these images.
INTERPRETED BY	ULTRASONOGRAPHIC FINDINGS
Beth Johnson, DVM DACVIM	Primary Findings
IMAGING PERFORMED BY	Lymphangiectasia – Small bowel findings are most consistent with lacteal dilation. These findings can be observed with protein-losing enteropathies caused by either primary lymphangiectasia or primary infiltrative inflammatory disease with secondary lymphangiectasia. Infiltrative neoplasia is possible but considered less likely. Histopathology is necessary to definitively determine underlying cause.
Jack Reese	Free fluid. Consistent with the patient's hypoalbuminemia.
HOSPITAL NAME	<u>INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS</u>
Willow Run VC	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.
REFERRING VET	Ideally, biopsies of the GI tract are recommended to definitively diagnose and therefore manage the infiltrative bowel process.
Dr. Brubaker	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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PATIENT

Lacie Tyson

If not already evaluated ruling out concurrent proteinuria is also warranted. Urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

SPECIES

Canine

BREED

Jack Russell Terrier
Mix

SEX

Spayed female

AGE

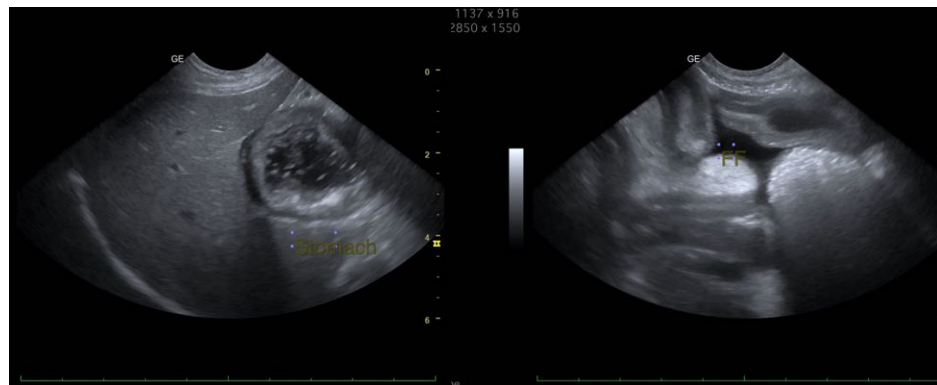
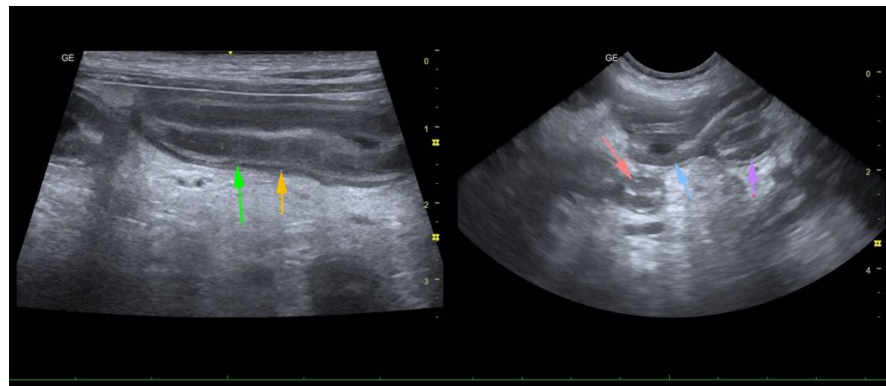
11 years

WEIGHT

20.4 lbs

INTERPRETED BY

Beth Johnson, DVM
DACVIM



IMAGING PERFORMED BY

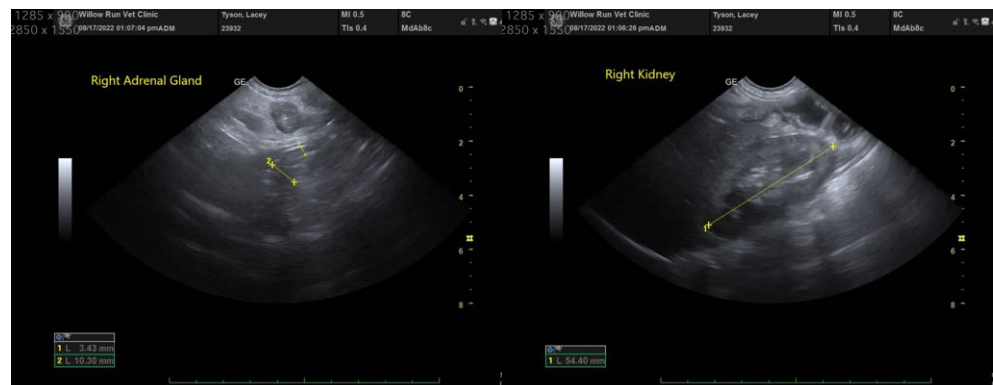
Jack Reese

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PATIENT

Lacie Tyson

SPECIES

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Jack Russell Terrier
Mix

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Jack Reese

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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.

Beth Johnson, DVM DACVIM

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