



<b>PATIENT</b>	<b>PRESENTING CLINICAL SIGNS</b>
Bully Parmiter	History: History of PU/PD, inappropriate urination. USG: 1.016 ALT: 287 ALP: 1642 3+ protein
<b>SPECIES</b>	<b>ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN</b>
Canine	<b>Urinary System</b>
<b>BREED</b>	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.
Jack Russell Mix	The prostate is normal for a neutered dog.
<b>SEX</b>	Left kidney is normal is size (5.66 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.
Neutered male	Right kidney is normal is size (5.29 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.
<b>AGE</b>	
10 years	
<b>WEIGHT</b>	<b>Adrenal Glands</b>
21 lbs	Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The left adrenal gland measured 1.2 cm at the cranial pole and 1.2 cm at the caudal pole. The right adrenal gland measured 0.9 cm at the cranial pole and 0.7 cm at the caudal pole.
<b>INTERPRETED BY</b>	<b>Spleen</b>
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.
<b>IMAGING PERFORMED BY</b>	<b>Liver</b>
Dr. Petrone	Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.
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<b>REFERRING VET</b>	
Dr. Petrone	
<b>INVOICE</b>	Gallbladder is mildly overdistended with a moderate amount of non-dependent, mildly aggregated/inspissated sludge. Hypo to anechoic cystic areas are noted between the gallbladder sludge and luminal wall. The wall is otherwise smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion.
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<b>DATE</b>	
7/7/22	



**PATIENT**

**Gastrointestinal**

Bully Parmiter

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

**SPECIES**

Canine

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.

**BREED**

Jack Russell Mix

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

**SEX**

Neutered male

**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.

**AGE**

10 years

**Free Abdomen**

**WEIGHT**

21 lbs

There is no evidence of peritoneal effusion or apparent lymphadenopathy noted in these images.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

**Bilateral adrenomegaly** – consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism.

**IMAGING**

**PERFORMED BY**

Dr. Petrone

**Emerging mucocele** – Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. The non-dependent nature of this sludge combined with the cystic areas are suggestive, however, of possible emerging cystic mucosal hyperplasia or early gallbladder mucocele.

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**Hyperechoic hepatomegaly (canine)** – This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible, but considered less likely.

**REFERRING VET**

Dr. Petrone

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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Recommendations given the clinical signs reported combined with the ultrasound findings include:

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1. Reportedly already scheduled low-dose Dexamethasone suppression test.
2. If not already performed a urine protein to creatinine ratio and blood pressure.



**PATIENT**

Bully Parmiter

**SPECIES**

Canine

**BREED**

Jack Russell Mix

**SEX**

Neutered male

**AGE**

10 years

**WEIGHT**

21 lbs

**INTERPRETED BY**

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DACVIM

**IMAGING PERFORMED BY**

Dr. Petrone

**HOSPITAL NAME**

Long Branch AH

**REFERRING VET**

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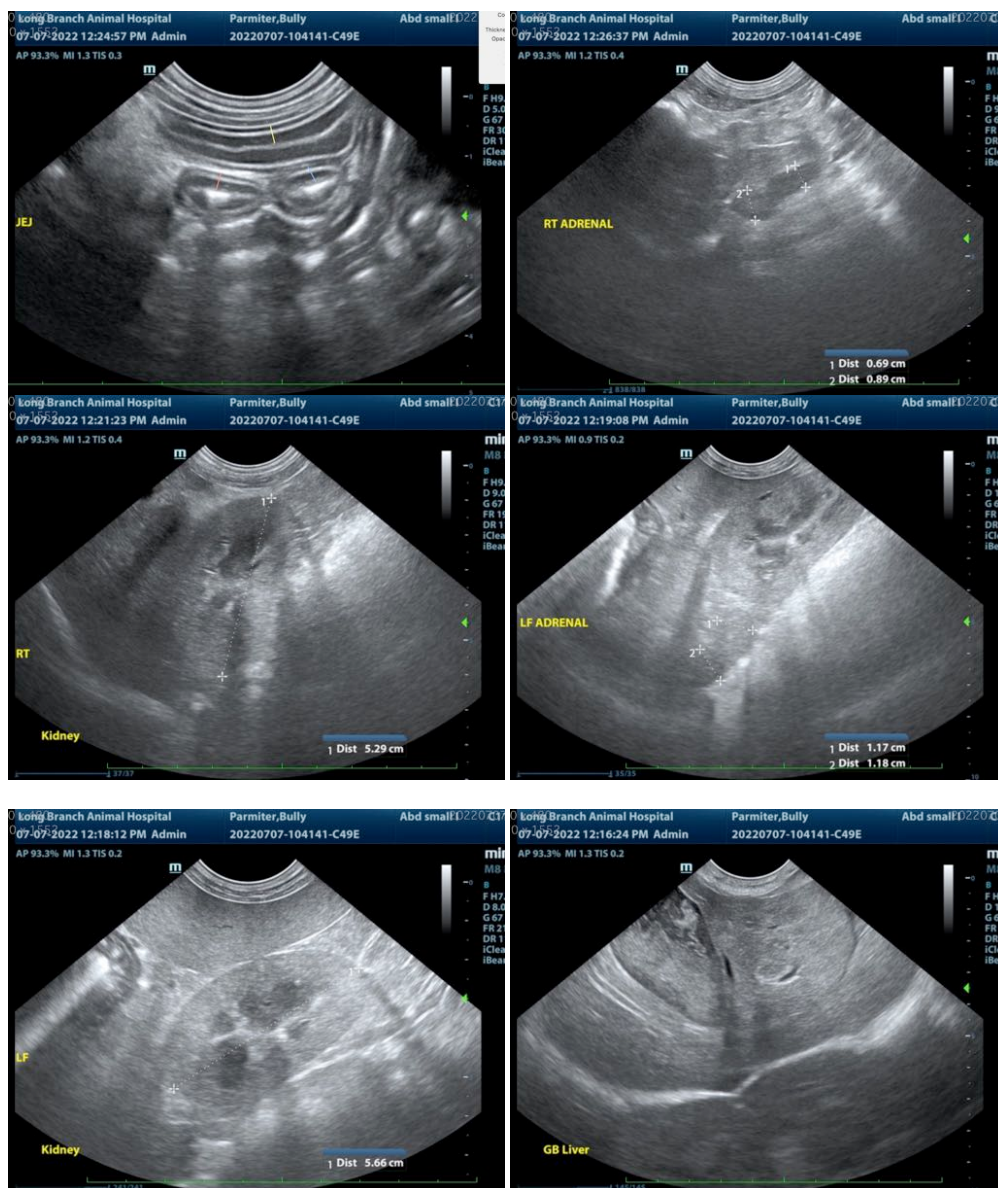
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- Leptospirosis can be considered to be thorough given the PU/PD, proteinuria, etc. However, the findings are likely attributed to the suspected hyperadrenocorticism.
- In the meantime, the addition of Ursodiol to the medical management may be beneficial.
- Pending diagnosis, treatment, etc. of suspected hyperadrenocorticism I recommend monitoring of the gallbladder for progression especially if clinical signs such as cranial abdominal pain and/or further increase in liver enzymes, nausea, decreased appetite, etc. develop.





**PATIENT**

Bully Parmiter

**SPECIES**

Canine

**BREED**

Jack Russell Mix

**SEX**

Neutered male

**AGE**

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**WEIGHT**

21 lbs

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**IMAGING  
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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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