



**PATIENT**

Cooper Comet

**SPECIES**

Canine

**BREED**

Fox Terrier

**SEX**

Neutered Male

**AGE**

13 Years

**WEIGHT**

25 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Scott

**HOSPITAL NAME**

Ho-Ho-Kus VH

**REFERRING VET**

Dr. Gannon

**INVOICE**

35878

**DATE**

2/24/22

**PRESENTING CLINICAL SIGNS**

Hx of PLN- is on Telmisartan (just increased to 20mg SID), tylan PRN, omega 3, B-12, plavix, w/d, and pepcid PRN

Abnormal PE/Chem/CBC/UA Results: Most recent UPC 4 CBC HCT 36.7% HGB 12.3 Retic 23.6 WBC 3.9 Neutro 2695 Lymph 788 ALT 37 ALP 649 SDMA 20 Creat 1.0 BUN 51 u/a sp grav 1.038 UPC 4.1 (Sept 2021=2.7, July 2021 3.9, June 24 2021 2.9)

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is moderately 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.

The prostate is mildly enlarged for a neutered dog. It measures 2.4 cm thick. The parenchyma is diffusely homogeneous and appropriately hypoechoic to surrounding tissue. It has normal distinct margins and a symmetrical bilobed shape. No cysts or mineral are observed.

The right kidney is normal in size (5.7 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.

The left kidney is normal in size (4.9 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**

The left adrenal gland is enlarged in size (0.89 cm at the cranial pole and 0.62 cm at the caudal pole). Normal shape and contour are maintained. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The right adrenal gland is enlarged in size (0.57 cm at the cranial pole and 0.52 cm at the caudal pole). Normal shape and contour are maintained. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**Spleen**

Spleen is subjectively enlarged in size with rounded margins but intact capsule. Parenchyma is normal in echogenicity with a coarse/heterogeneous/motheaten echotexture. The motheaten appearance is characterized by multifocal hypo- to anechoic nodules. Splenic vasculature appears normal.

**Liver**

Liver is subjectively enlarged with rounded margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature appears normal.

The gallbladder is non-distended in size. The wall is mildly thick and hyperechoic due to the accumulation of debris/mineral sand along the inner wall. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.



<b>PATIENT</b>	<b><i>Gastrointestinal</i></b>
Cooper Comet	The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.
<b>SPECIES</b>	
Canine	The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). 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.
<b>BREED</b>	
Fox Terrier	The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.
<b>SEX</b>	<b><i>Pancreas</i></b>
Neutered Male	The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.
<b>AGE</b>	<b><i>Free Abdomen</i></b>
13 Years	There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.
<b>WEIGHT</b>	<b>PRIMARY FINDINGS</b>
25 Pounds	<ul style="list-style-type: none"> <li>Diffusely nodular/moth-eaten splenomegaly – Most concerning for infiltrative neoplastic disease such as round cell neoplasia. Benign infiltrative processes such as extramedullary hematopoiesis or lymphoid hyperplasia are possible, but considered much less likely.</li> <li>Heterogenous liver – Differentials for hepatic changes include both benign steroid (vacuolar) hepatopathy or extramedullary hematopoiesis as well as infiltrative round cell or metastatic neoplasia.</li> <li>Bilateral adrenomegaly – consistent with adrenal hyperplasia secondary to pituitary depending hyperadrenocorticism vs normal variant.</li> </ul>
<b>INTERPRETED BY</b>	<b>SECONDARY FINDINGS</b>
Beth Johnson, DVM DACVIM	<ul style="list-style-type: none"> <li>Gallbladder debris - 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. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.</li> <li>Mild prostatomegaly for a neutered dog</li> </ul>
<b>IMAGING PERFORMED BY</b>	
Dr. Scott	
<b>HOSPITAL NAME</b>	
Ho-Ho-Kus VH	
<b>REFERRING VET</b>	
Dr. Gannon	
<b>INVOICE</b>	<b><u>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</u></b>
35878	The primary recommendation is a fine needle aspirate of the spleen +/- the liver if patient's coagulation status is appropriate. Pending those results, other (considered less significant) findings in this ultrasound include the mild prostatomegaly. If patient was neutered as an adult, this is a normal incidental finding and does not need further intervention. If this patient was neutered as a puppy, the prostate should be monitored regularly for progression with a recheck ultrasound in 4-6 weeks, and/or if there are any lower urinary tract signs, further diagnostics at this time could include a urine culture to
<b>DATE</b>	
2/24/22	



**PATIENT**

start with.

Cooper Comet

Given the liver, gallbladder and adrenal gland changes combined with the increased Alk Phos and progressive proteinuria, hyperadrenocorticism is a differential for this patient. If there are clinical signs of hyperadrenocorticism such as polyuria/polydipsia, polyphagia, etc., testing for hyperadrenocorticism could be considered with a low-dose Dexamethasone suppression test. However, testing for hyperadrenocorticism is not recommended in the face of other untreated disease such as the suspected infiltrative round cell neoplasia affecting the spleen, because of the risk for false positives. Therefore, recommendations including starting with spleen and liver aspirates, and then proceeding to the other problems as discussed. A blood pressure is recommended if not recently evaluated.

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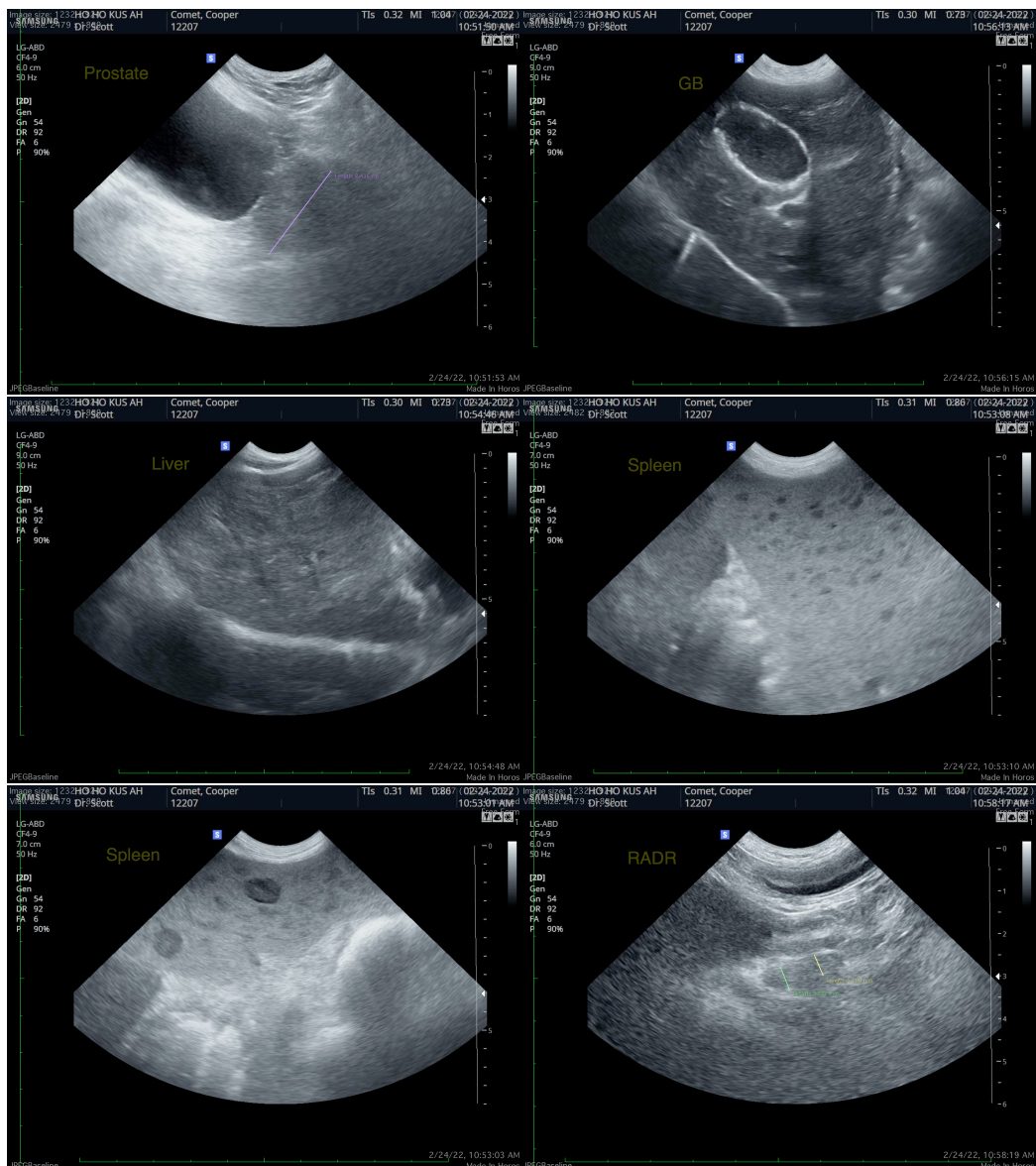
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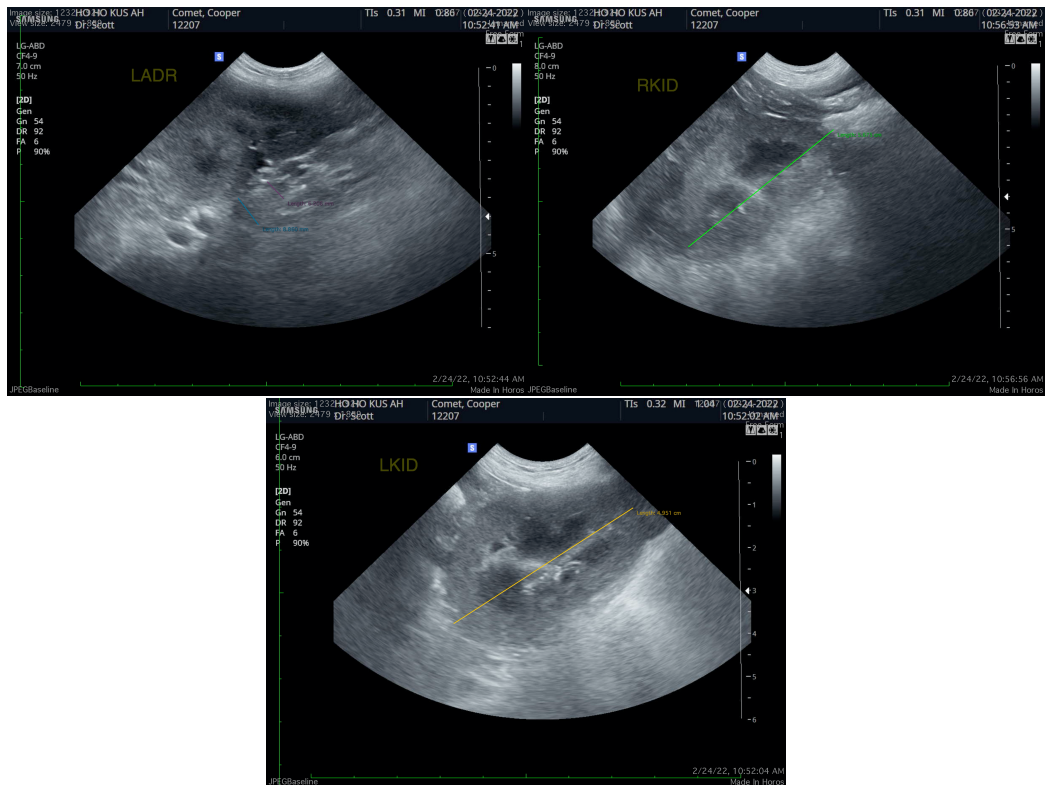
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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**  
Beth.Johnson@sonopath.com