



DATE PRESENTING CLINICAL SIGNS

2/17/26 **Patient History:** On chronic prednisone to treat neurologic condition suspected to be NPL. Annual lab work in January found severely elevated liver values and sepsis. Treatment was started for suspected cholangiohepatitis.

PATIENT

Raven Lott Lab work one week later, liver values improved but sepsis worsened. Treatment continued. 2 week post lab work showed sepsis/infection resolving, but liver values/hepatic damage increasing.

SPECIES

Canine

Current Medications: Metronidazole 500mg BID, Enrofloxacin 136mg 2 SID, Denamarin 425mg 2 SID
Labwork Results: Labwork attached.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Declined at this time.

BREED

Labrador

Stat Report: Not requested.

Imaging Performed by: Stephanie Warga RDCS, RVT.

SEX

Neutered Male

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

AGE

7/31/14

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with a mild amount of echogenic non-shadowing debris, most consistent with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

WEIGHT

104 lbs

Prostate is normal in size, echotexture and echogenicity for a neutered male.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. Left kidney measures 8.1 cm with trace pyelectasia noted. Right kidney measures 9.02 cm. Multiple cortical cysts are present bilaterally.

HOSPITAL NAME

Abbey Animal Hospital

Adrenal Glands

REFERRING VET

Dr. Kluttz

The adrenal glands are unable to be visualized in these images.

Spleen

INVOICE

73020

The spleen is difficult to fully visualize but is imaged intercostally without evident visible pathology noted in these images at this time.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is mottled by multifocal discrete hypoechoic nodules of varying sizes "moth-eaten". Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall of the gallbladder appears as a thin hyperechoic/calcified rim casting a distinct distal acoustic shadow. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with a small to moderate amount of 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.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta/chyme. There is no evidence of obstruction, foreign material or infiltrative disease.

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

Pancreas

The pancreas that is observed 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.

Free Abdomen

In one view between the trigone of the urinary bladder and the descending colon, there is an approximately 1.6 cm x 0.80 cm hypoechoic density that is difficult to identify. It could originate from the wall of the colon versus a lymph node versus other.

There is no visible free peritoneal effusion noted in these images.

PRIMARY FINDINGS

- Nodular liver – This finding could represent infiltrative neoplasia such as round cell neoplasia, metastatic neoplasia, other. Having said that, a benign process such as marked nodular hyperplasia or even chronic inflammatory disease cannot be ruled out without additional information.
- Mild 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.
- Porcelain gallbladder – Porcelain (calcified) gallbladder is an uncommon finding in companion animals and has been observed as both an incidental finding and associated with biliary neoplasia. In humans, porcelain gallbladder can be a manifestation of chronic gallbladder disease, chronic cholecystitis, intramural hemorrhage with subsequent calcification, imbalances in calcium

metabolism, and even giardiasis. This finding should be interpreted in combination with any clinical signs and/or laboratory changes suggestive of biliary disease and/or calcium dysregulation, etc.

- The caudal abdominal density between the urinary bladder and colon as described above could represent a lymph node, although colonic wall pathology can't be ruled out. Both benign inflammatory and infiltrative neoplastic differentials are possible.

SECONDARY FINDINGS

- Age related kidney changes with multiple bilateral cortical cysts and a mild amount of echogenic urinary bladder debris.

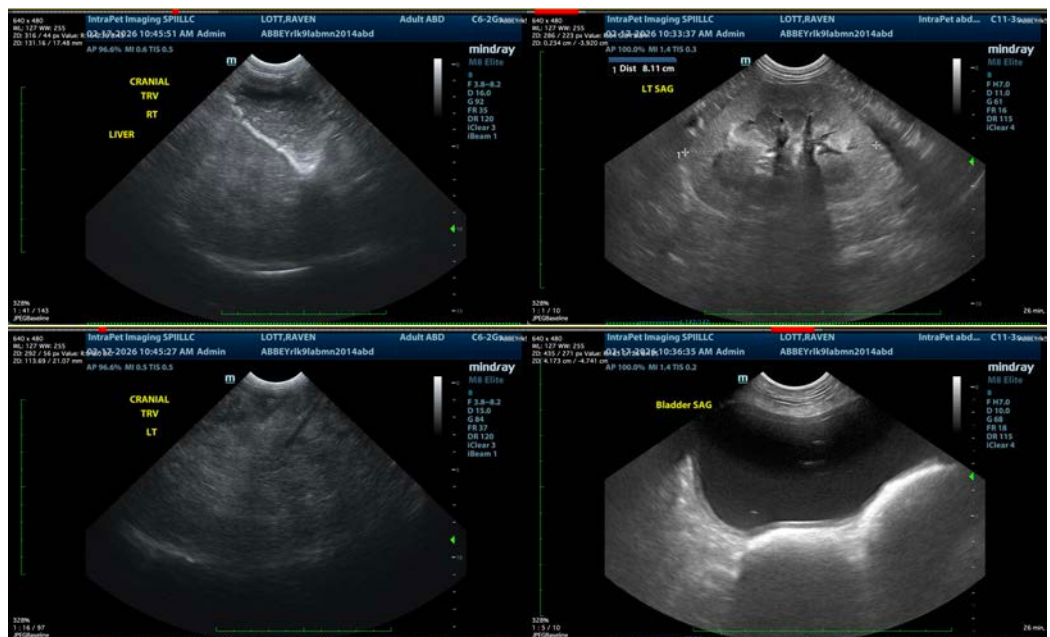
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

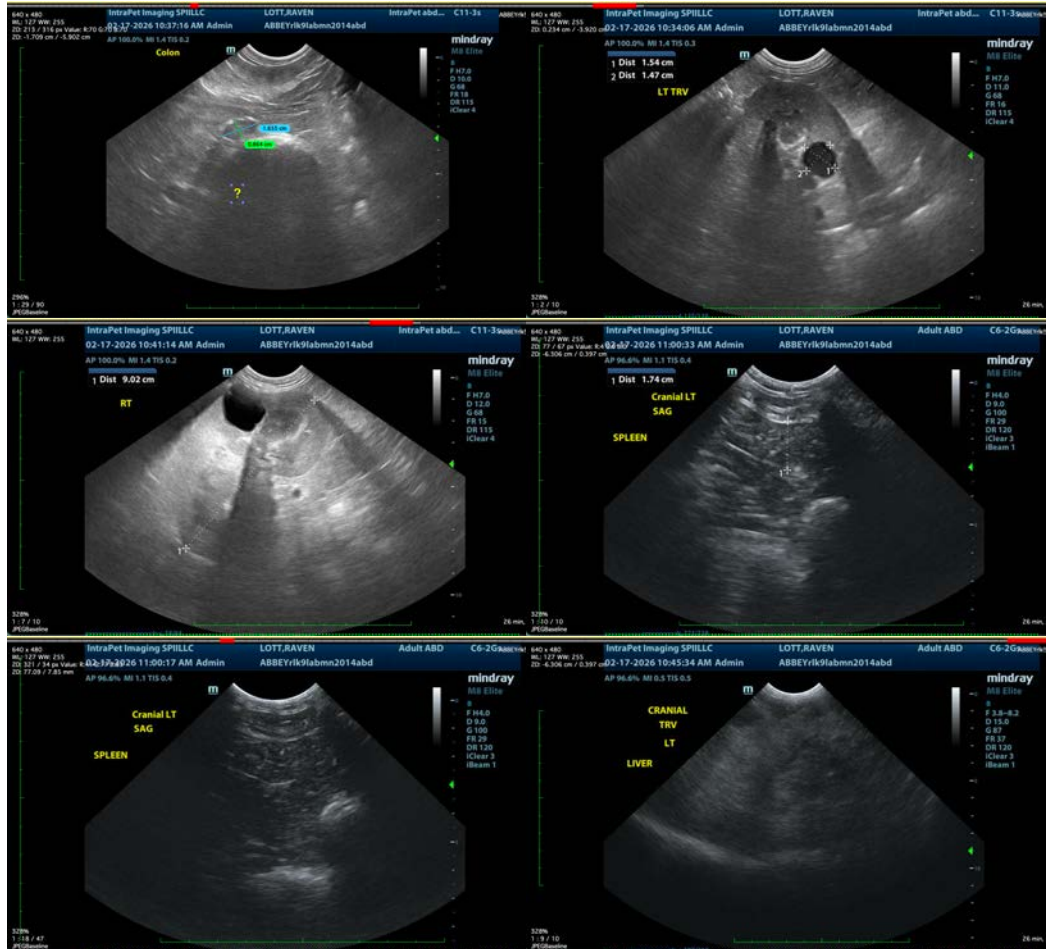
**Per the sonographer. This was a very difficult scan due to difficulty with patient penetration, especially of the cranial abdomen, and patient vocalizing.*

If not already evaluated, bile acids are recommended if patient's total bilirubin is not increased.

Liver sampling is recommended. Fine needle aspirates could be considered to further investigate possible round cell neoplasia, assess inflammatory cell type, if possible, etc. if patient's coagulation status is appropriate, but ultimately liver biopsies, being sure to include copper level assessment may be indicated for a definitive diagnosis and therefore to further guide medical management.

Other than supportive/symptomatic medical management of clinical signs, further treatment recommendations are largely dependent on results of the above.





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.

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