



**PATIENT PRESENTING CLINICAL SIGNS**

Jack Olsen Patient presents for decreased appetite, vomiting, weight loss. He is struggling to defecate and urinate. Patient is anemic, gums are pale and icteric. Current meds: Cerenia 6mgs SID, mirtazapine, Pred 5mgs BID, and Amoxi 100 mgs BID.

**SPECIES** Abnormal PE/Chem/CBC/UA Results: PCV 34, WBC 37.8, ALP 191, ALT 183, T. bili 4.5.

Feline

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED** *Urinary System*

DSH

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.

**SEX**

Neutered Male

The right kidney is normal in size (4.01 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**

14 Years

The left kidney is normal in size (3.43 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*

**WEIGHT**

9.7 Pounds

The right adrenal gland is normal in size (0.40 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.40 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

*Spleen*

The 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**

Kelly Vazquez

*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.

**HOSPITAL NAME**

Glen Rock VH

The 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.

**REFERRING VET**

Dr. Scott Stekler

*Gastrointestinal*

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

**INVOICE**

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The visible small intestine demonstrates areas of thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. The lumen is empty with no evidence of obstruction or foreign material. In the mid abdomen, there is a focal bowel loop that is exceptionally thick and has a loss of layering noted.

**DATE**

8/4/22



**PATIENT**

Jack Olsen

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

**Pancreas**

**SPECIES**

Feline

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.

**BREED**

DSH

**Free Abdomen**

A scant amount of anechoic free fluid is noted.

**SEX**

Neutered Male

Mesenteric, medial iliac, and cranial abdominal lymph nodes are enlarged with swollen irregular capsular contour and loss of normal length to width ratio (rounded in shape). Nodes are hypoechoic with loss of normal parenchymal detail.

**ULTRASONOGRAPHIC FINDINGS**

**AGE**

14 Years

- **Gastrointestinal lymphoma (suspect) pattern** – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. Given the concurrent pathology noted, infiltrative neoplasia is considered more likely, but benign IBD cannot be ruled out without tissue sampling. A focal bowel loop is present that demonstrates loss of layering, concerning for infiltrative neoplasia such as lymphoma.

**WEIGHT**

9.7 Pounds

- **Nodular Liver** - This finding is concerning for infiltrative disease such as round cell neoplasia or metastatic neoplasia. Benign disease cannot be ruled out but is considered less likely.

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- **Aggressive lymph nodes** – most consistent with infiltrative round cell or metastatic neoplasia. A benign aggressive inflammatory response cannot be ruled out without tissue sampling +/- culture.

**IMAGING PERFORMED BY**

Kelly Vazquez

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Recommendations include a fine needle aspirate of the liver and/or the enlarged lymph nodes +/- the focal loss of layering/bowel mass, if possible, and if patient's coagulation status is appropriate. If a cytologic diagnosis is masked by current Pred, biopsies of the gastrointestinal tract and enlarged lymph nodes may be necessary for definitive diagnosis, and therefore management guidance of the infiltrative disease.

**HOSPITAL NAME**

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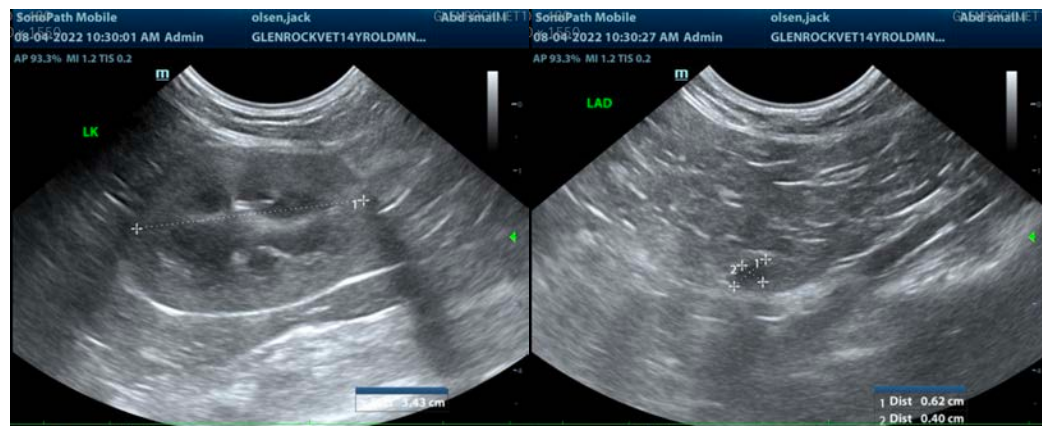
Dr. Scott Stekler

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**PATIENT**

Jack Olsen

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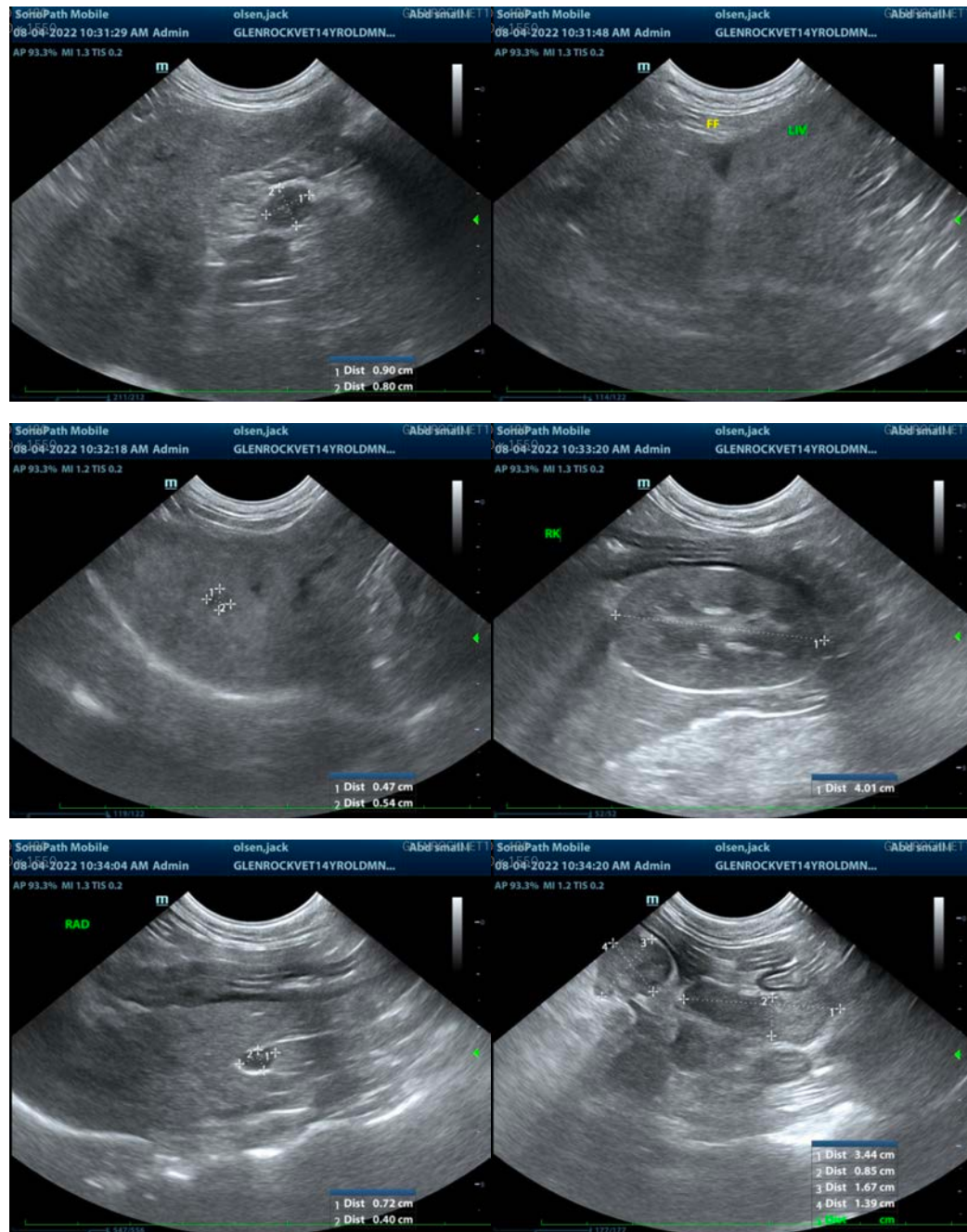
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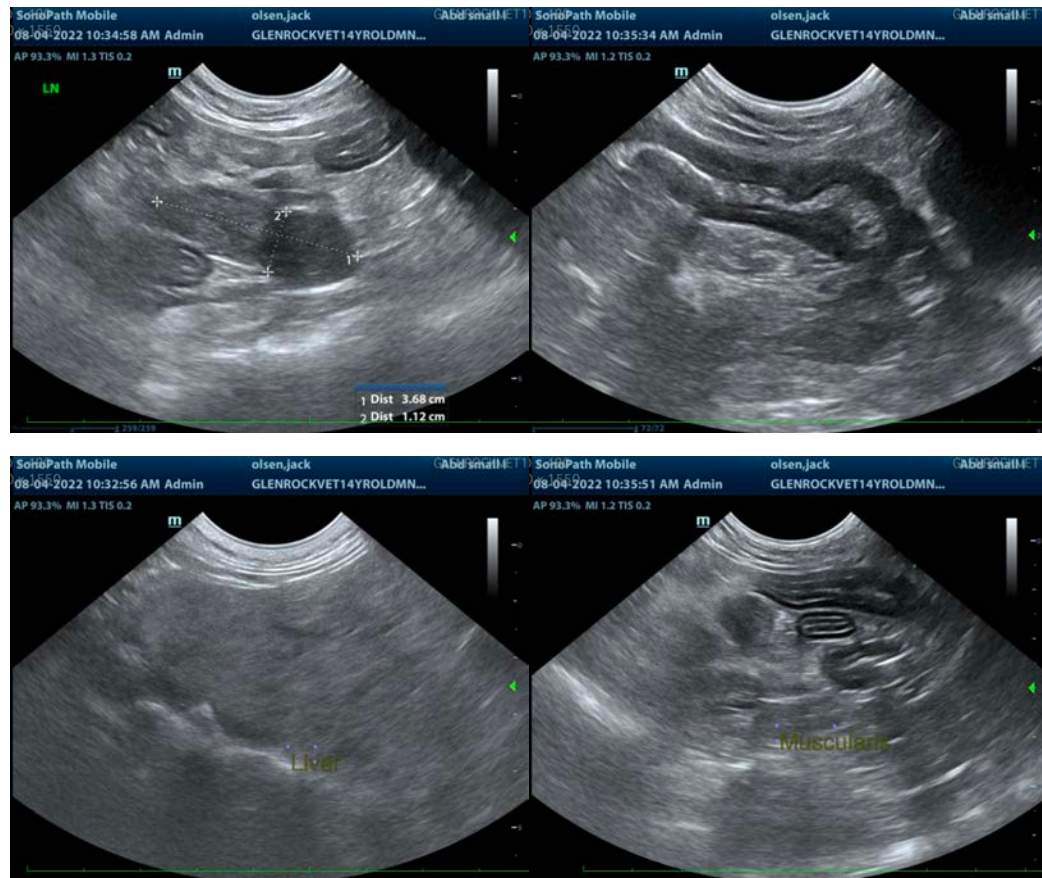
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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**  
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