

**DATE PRESENTING CLINICAL SIGNS**

4/6/22 Repeat AUS from 1/21/22. Scan revealed severe mesenteric lymphadenopathy, moderate to severe small and large intestinal wall thickening and a mottled spleen. O elected medical management with steroids in order to shrink LN's. P has been doing fine clinically since then.

**PATIENT**

Alice Scott Current Medications: prednisone 20mg twice weekly.

Lab Results: 12/16/21: WBC 19.9, Neu 17,592, T4 <0.4.

Radiographs: See attached.

**SPECIES**

Date of Previous IntraPet Ultrasound: 1/21/22. See attached.

Canine

Sedation: Telazol IV.

Stat Report: Not requested.

**BREED**

Coonhound X

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****SEX****Urinary System**

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

Spayed Female

**AGE**

The left kidney has a normal shape and size (6.8 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

7/10/13

**WEIGHT**

100.3 Pounds

The right kidney has a normal shape and size (6.23 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**INTERPRETED BY**

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.74 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**IMAGING PERFORMED BY**

Stephanie Pearce  
RDCS, RVT

The right adrenal gland is normal in size measuring 0.68 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**HOSPITAL NAME**

Northwind AH

**Spleen**

The spleen is subjectively normal in size. The spleen echotexture is heterogenous and mildly mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

**REFERRING VET**

Dr. Wilson

**Liver**

The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

**INVOICE**

36757

The gall bladder lumen is significantly distended. Some areas of the wall appear mildly thickened with adherent debris. There is a large amount of non-organized echogenic debris, but additionally there is organization around the periphery of the wall, and evidence of early mucocele formation. There is a scant

amount of fluid around the gallbladder wall. There is no evidence of bile duct dilation. These changes can be consistent with an early gall bladder mucocele.

### ***Gastrointestinal***

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Jejunum wall measured 0.35 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering. The ileum appears mildly thickened, measuring 0.68 cm (previously measured at 0.60 cm at the level of the ileocecal junction). Sections of colon are visualized with formed fecal material and gas shadowing distally.

### ***Pancreas***

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

### ***Free Abdomen***

There is a scant amount of free fluid in the area of the gallbladder. There is a severe mesenteric lymphadenopathy present with mesenteric lymph node at the root of the mesentery measuring 2.7 cm x 8.66 cm, and another measuring 6.0 cm x 2.9 cm. These lymph nodes are greatly enlarged, but slightly smaller than the previous scan. The omentum is of increased echogenicity around the abnormal lymph nodes.

## **PRIMARY FINDINGS**

- Severe mesenteric lymphadenopathy – The severe mesenteric lymphadenopathy is most concerning for a neoplastic process, although you can see significant lymphadenopathy in some cases of autoimmune/inflammatory disease, infectious disease (tick born disease-such as bartonella, fungal infections, FIP (cats)) etc. A fine needle aspirate with cytology is recommended for further evaluation. While these lymph nodes are still greatly enlarged, they appear slightly smaller than the previous scan.
- Mild small intestinal thickening – The mild small intestinal wall changes may be a normal variant in this patient or could be consistent with an inflammatory process (e.g., inflammatory bowel disease).
- Thickened ileum at the level of the ileocecal junction – most consistent with inflammation, infection, or neoplasia. Measurements of the ileum appear stable.
- Early mucocele development – The material within the gallbladder is organized into an early mucocele. Additionally, there is a small amount of free abdominal fluid surrounding, but there is no hyperechoic tissue, so this could be secondary to the generalized disease. Close monitoring is warranted.
- Large, heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. There is also a likely steroid hepatopathy present.

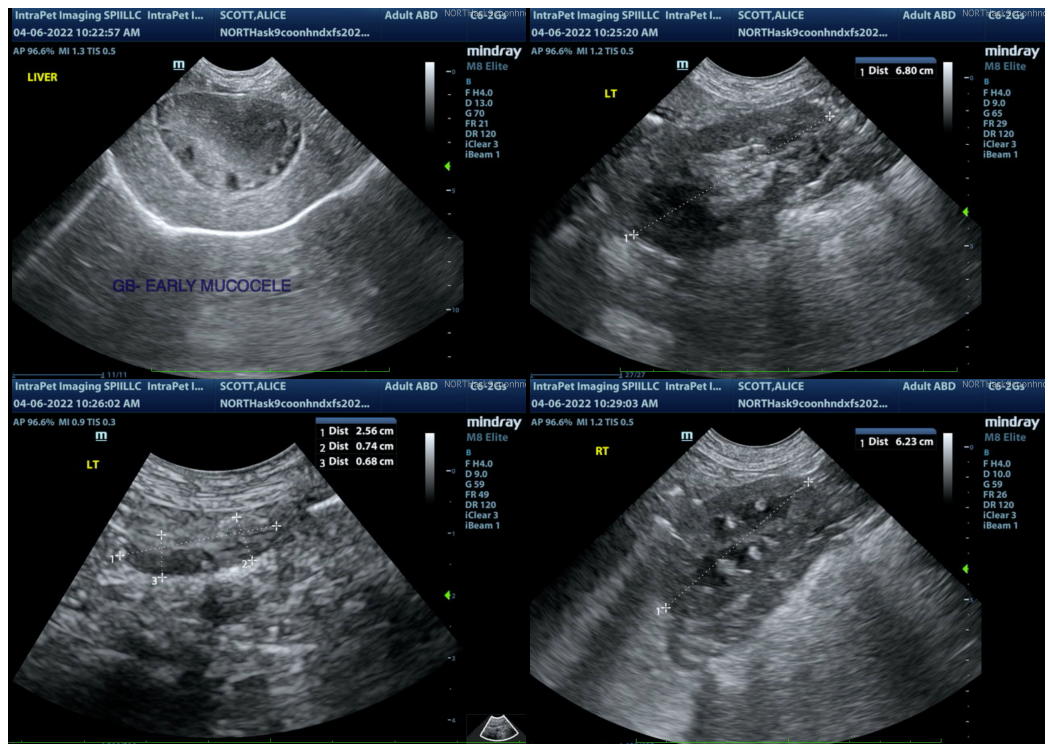
## SECONDARY FINDINGS

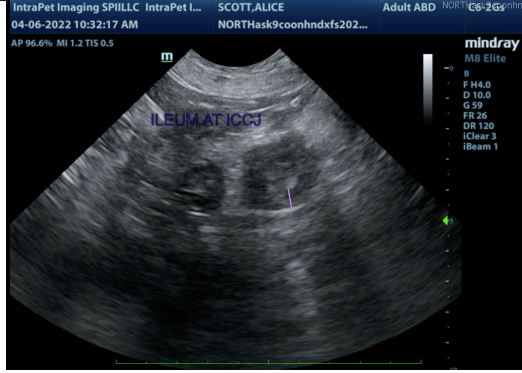
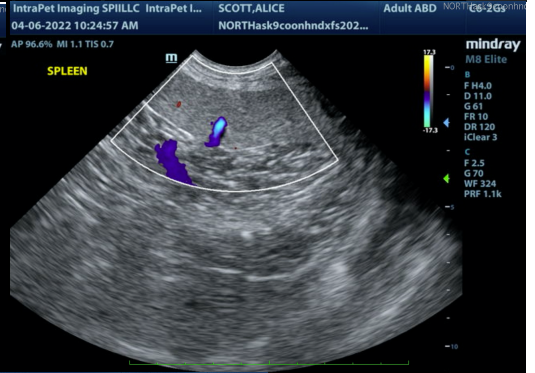
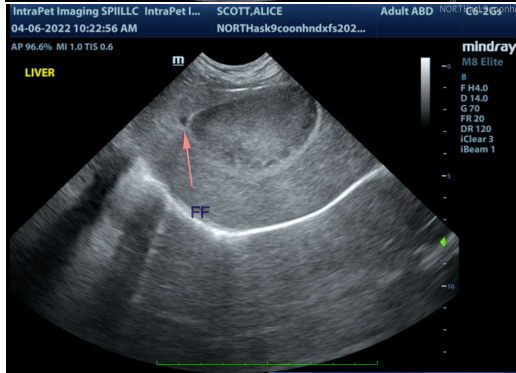
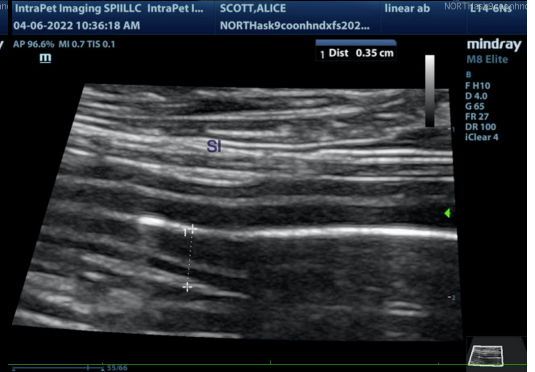
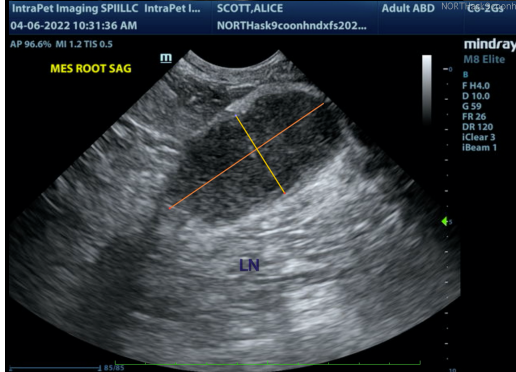
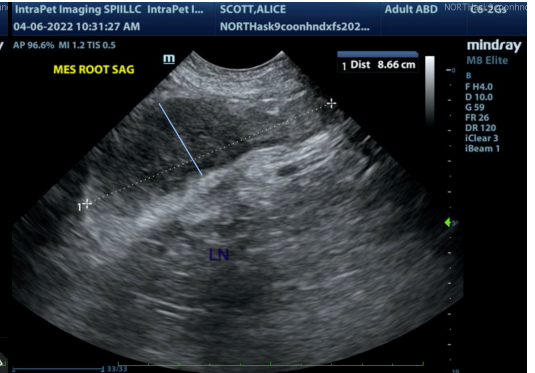
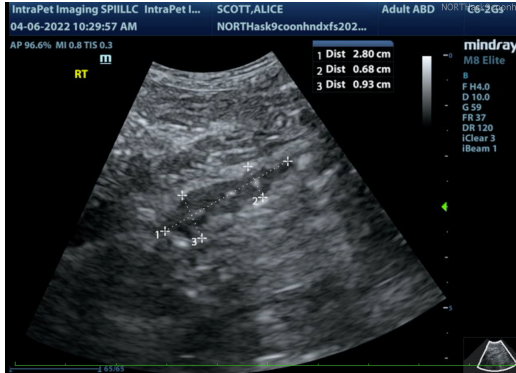
- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a persistent severe lymphadenopathy present, but it does appear slightly improved. Additionally, the bowel may be subjectively less prominent. It is likely that the Prednisone has an anti-inflammatory effect or anti-neoplastic effect, and is temporarily reducing the size of these structures. Recommend a fine needle aspirate of a mesenteric lymph node.

The debris in the gallbladder appears to have organized into an early mucocele. Correlate this with recent bloodwork. If abdominal pain is present, an elevation in bilirubin, etc., then consider emergency evaluation for possible surgery. Despite the fact that there is some free fluid around the gallbladder, I suspect this is secondary to the free fluid that was previously observed in the abdomen. Recommend starting Ursodiol and a course of antibiotics.





**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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)  
kathleen.sennello@sonopath.com