



**DATE PRESENTING CLINICAL SIGNS**

3/22/23

**PATIENT**

Lucy Andryszak

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

11/1/08

**WEIGHT**

13.36 Pounds

**INTERPRETED BY**

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

**HOSPITAL NAME**

Northwind AH

**REFERRING VET**

Dr. Repsher

**INVOICE**

46082

P is a diabetic that has been well maintained on Purina DM wet food and 1 unit NPH insulin q 12. P has issues off and on with constipation but overall has been doing well with miralax. Previous weight when last seen December 28 was 16.26. O had been working on diet / weight loss but weight has been maintaining at 16lbs for all of previous year. P presented for decreased appetite eating only 1/2 to 3/4 of what she normally has been, drinking more water. PE - mild dermatitis behind shoulders / neck, no fleas present. overall unremarkable. BW showed elevated liver values, UA negative for ketones, BG has been in 100s when checked. Treated with convenia cerenia and mirataz while waiting for BW from lab. O reports appetite is still decreased despite meds

Current Medications: Convenia inj given 0315/23, NPH insulin q 12, 1/4 tsp miralax to control chronic constipation, mirataz transdermal once daily  
Lab Results: BUN - 53, creat and SDMA WNL. Liver values elevations: ALT 894, AST 300, ALP 223, total bili 0.7  
Date of Previous IntraPet Ultrasound: No previous.  
Sedation: Not required to complete full diagnostic ultrasound.  
Stat Report: Not requested.  
Imaging Performed By: Rachel Brillhart, RDMS.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**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.

The left kidney has a normal shape and size (4.74 cm) with mild pyelectasia at 0.21 cm and mild retroperitoneal inflammation. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.82 cm) with mild pyelectasia at 0.29 cm and mild retroperitoneal inflammation. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is normal in size/borderline "plump" measuring 0.44 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.

The right adrenal gland is normal in size/borderline "plump" measuring 0.44 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.

**Spleen**

The spleen is subjectively normal in size (0.89 cm), echotexture is homogenous, and 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.

### ***Liver***

The liver is subjectively normal in size, and hypoechoic 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.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

### ***Gastrointestinal***

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.36cm 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 relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measures 0.31 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 and is subjectively of normal thickness. Sections of colon are visualized with a large volume of formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

### ***Pancreas***

The pancreas is prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid. Prominent pancreatic duct noted.

### ***Free Abdomen***

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There are occasional visible/prominent mesenteric lymph nodes around the ileocecal junction. One such lymph node measures at 0.27 cm. The omentum is somewhat hyperechoic in the region around the kidneys.

## **PRIMARY FINDINGS**

- Decreased corticomedullary distinction in both kidneys with bilateral pyelectasia – The bilateral renal findings are consistent with age-related change. Pyelectasia of the kidney(s) could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- Borderline bilateral adrenomegaly – This could be a stress response, or if insulin resistance is documented in the future, you could consider further workup for adrenal dependent disease.
- Prominent, mottled pancreas with prominent pancreatic duct – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Hypoechoic, heterogeneous liver – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.
- Moderate gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting. Incidental gall bladder debris is less common in cats.

## SECONDARY FINDINGS

- Subjectively large volume solid stool in the colon – This is consistent with the history of constipation reported.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

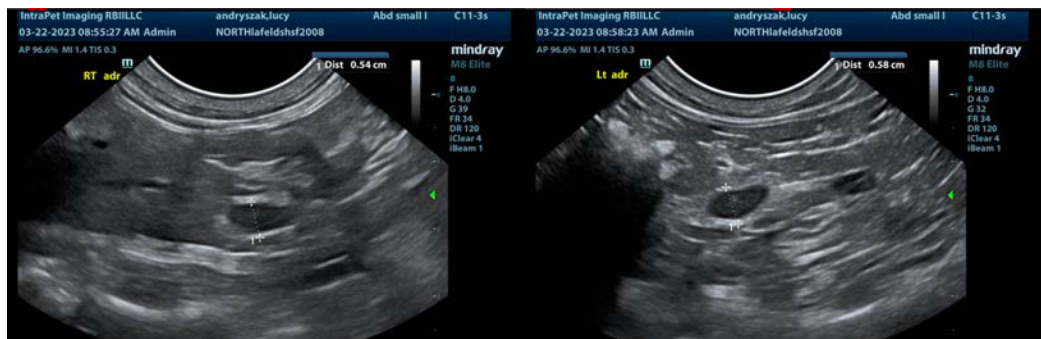
The liver is somewhat heterogeneous with no focal lesions, and there is some mild debris visualized within the gallbladder, but there is no associated inflammation, wall thickening, etc. Findings are most concerning for a primary hepatopathy. Consider the following:

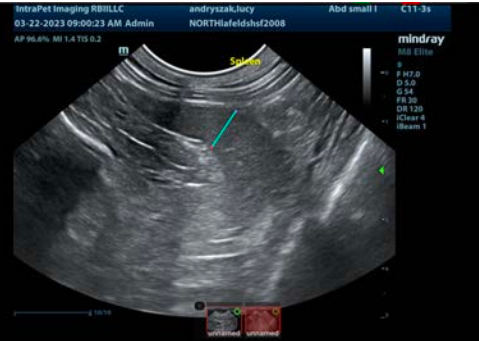
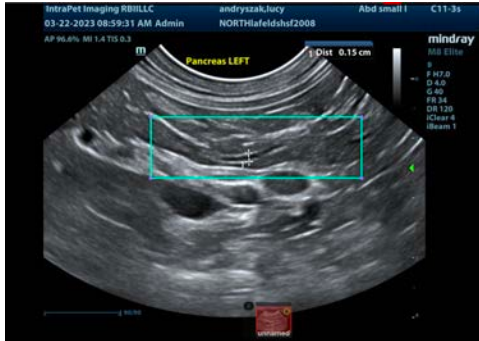
- Consider close evaluation of history for possible toxic changes examine medications, diet, dietary indiscretion etc.
- Recommend thyroid evaluation (if not already done)
- Recommend screening for toxoplasmosis.
- Consider Fine needle aspirate if round cell neoplasia is on your differential list (25 g needle, normal coags)
- Consider liver biopsy with samples obtained for histopathology and culture
- If triaditis is suspected consider therapy for cholangiohepatitis, testing for pancreatitis and evaluation for IBD (GI panel to Texas A&M GI lab)

With this patient's history and the prominent pancreas, you could consider empirical treatment for cholangiohepatitis. Additionally, I would consider a GI panel to Texas A&M for a qualitative fPLI, TLI, cobalamin and folate, looking for evidence of concurrent GI disease and to follow possible pancreatic inflammation.

Both kidneys have decreased corticomedullary distinction and some mild pyelectasia with mild perinephric inflammation. Recommend a urinalysis and culture, looking for any evidence of pyelonephritis, and a blood pressure and urinalysis as a baseline for possible early renal disease.

Prominent solid stool is visualized within the colon. Correlate this with abdominal radiographs, looking for constipation. Consider increasing the dose of Miralax and/or increasing hydration if this is persistent. Additionally, the adrenal glands are somewhat prominent. I suspect this is secondary to stress associated with illness, but this could also be seen with early adrenal dependent disease (PDH, etc.).





**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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