

**DATE PRESENTING CLINICAL SIGNS**

9/6/22

Last October/November P had bloodwork done at annual exam and the P had beginning stages of renal disease. In April P was vomiting and went back to the vet and P was in stage II kidney disease. The past couple of days P has been lethargic, vomiting, not able to keep food down, and has lost weight.

**PATIENT**

Parker Rose

Current Medications: Cerenia, Protonix, Ondansetron, Buprenorphine.  
Lab Results: See attached.

**SPECIES**

Feline

Date of Previous IntraPet Ultrasound: No previous.  
Sedation: Not required to complete full diagnostic ultrasound.  
Stat Report: Not requested.

**BREED**

DMH

**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.

**SEX**

Neutered Male

The left kidney has a normal shape and size (3.11 cm) with pyelectasia at 0.39 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**AGE**

9/5/04

**WEIGHT**

7.8 Pounds

The right kidney has a normal shape and size (3.06 cm) with pyelectasia at 0.39 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal 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 0.38 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**

Rachel Brilhart RDMS

The right adrenal gland is normal in size measuring 0.30 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**

Animal Emergency  
Hospital

**Spleen**

The spleen is prominent/borderline large (1.1 cm) and hypoechoic. 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. Roper

**Liver**

The liver is subjectively normal in size, and 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**

41046

The gallbladder lumen is moderately distended. The wall of the gall bladder is hyperechoic and appears somewhat thickened, measuring at 0.32 cm. The gallbladder wall has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The bile duct appears significantly thickened, dilated and tortuous with a diameter of 1.0 cm proximally and 0.51 cm more distally. The bile duct wall measures at 0.1 cm.

### ***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 uniform diameter with minimal fluid distension. Wall thickness is normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measures 0.23 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 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 large and hypoechoic to surrounding mesentery. There are numerous hypoechoic nodular/cystic lesion visualized throughout the pancreatic tissue. There is evidence of regional mesenteric inflammation. Consistent with moderate pancreatitis, possibly nodular hyperplasia and cystic lesions.

### ***Free Abdomen***

There is a small amount of free abdominal fluid. There is a significant mesenteric lymphadenopathy with a large irregular mid to caudal abdominal mass/lymph node measuring 3.28 cm x 2.51 cm. The omentum is hyperechoic around the enlarged lymph node and the pancreas.

## **ULTRASONOGRAPHIC FINDINGS**

- Prominent, hypoechoic, nodular pancreas – consistent with nodular pancreatitis and likely lymphoid hyperplasia, although underlying neoplastic process cannot be ruled out.
- Heterogeneous liver – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.
- Thickened gallbladder wall with a thickened, tortuous bile duct – Dilation of the common bile duct could be consistent with a functional obstruction (i.e. primary hepatic disease resulting in hepatocellular swelling) or with an extrahepatic bile duct obstruction (ie. choledocholith, bile duct tumor, pancreatic disease, other).
- Large mid to caudal abdominal lymph node/mass effect – Recommend fine needle aspirate.
- Decreased corticomedullary distinction in both kidneys with pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the kidney(s) could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- Subjectively prominent/hypoechoic spleen – Changes are subjective but could be consistent with infiltrative disease. Consider a fine needle aspirate.
- Prominent muscularis layer to the small intestine – The small intestinal wall changes could be consistent with an underlying inflammatory process. These types of changes can sometimes be seen in normal older cats. Correlate with clinical signs.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a large, irregular rounded structure in the mid to caudal abdomen, most consistent with a large lymph node or mass effect. Recommend a fine needle aspirate of this lesion.

The pancreas is very prominent and hypoechoic with surrounding hyperechoic mesentery. Additionally, there are hypoechoic lesions throughout the pancreas, which could be consistent with pancreatic nodules/cysts. These changes could be consistent with moderate pancreatitis and lymphoid hyperplasia, but given the lymph node enlargement, etc., and underlying neoplastic process cannot be excluded. A fine needle aspirate of the pancreas could be considered.

The changes observed in the kidneys are consistent with chronic progressive renal disease. Recommend urinalysis and culture and blood pressure evaluation.

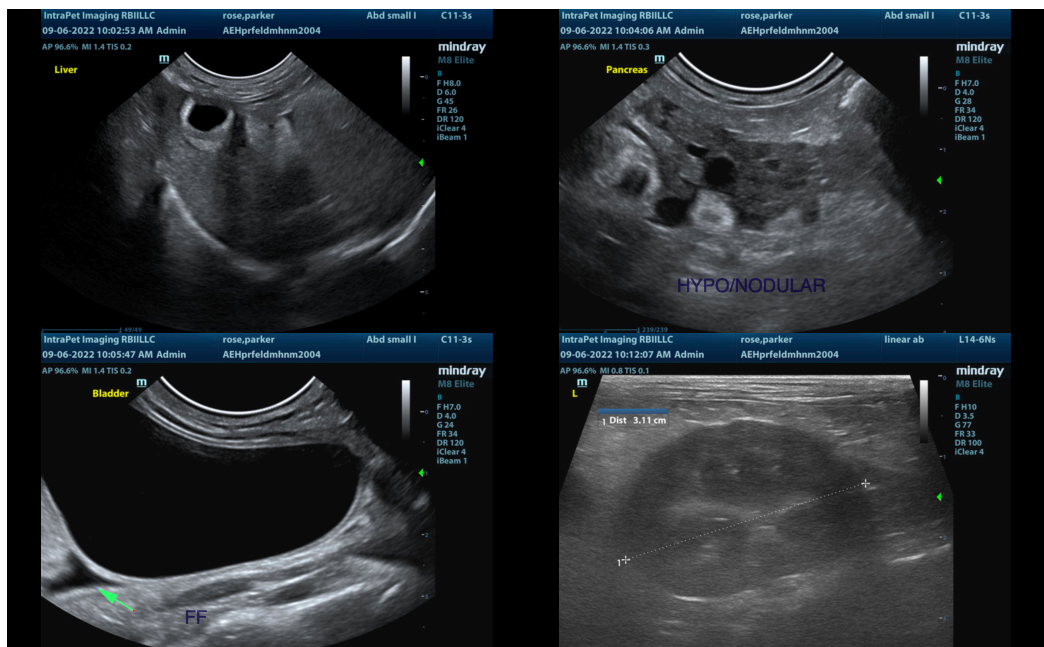
The gallbladder wall is thickened, and this extends into a dilated, thickened bile duct. An obvious obstruction is not visualized. Consider such differentials as infiltrative disease, obstruction secondary to pancreatitis, or cholangiohepatitis. Recommend treatment for pancreatitis, Ursodiol therapy, and continued monitoring of the gallbladder/bile duct and liver enzymes.

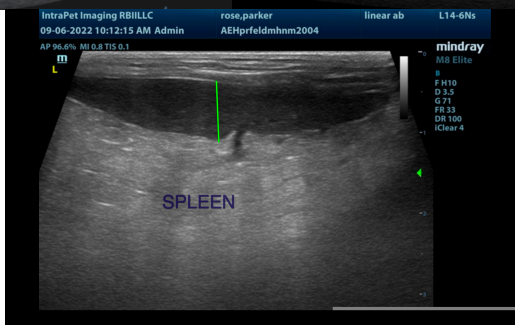
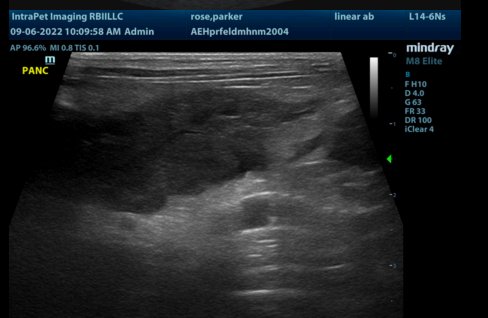
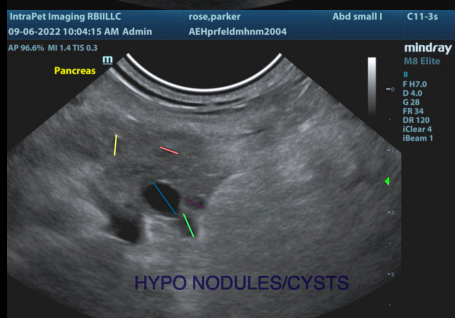
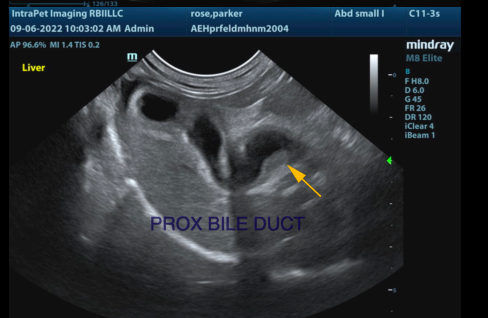
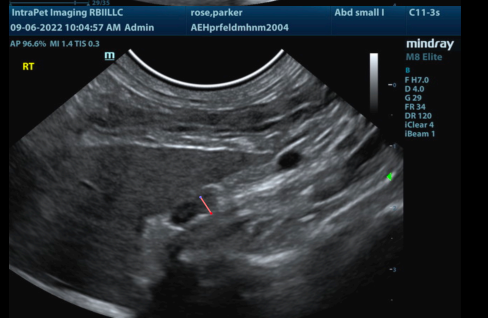
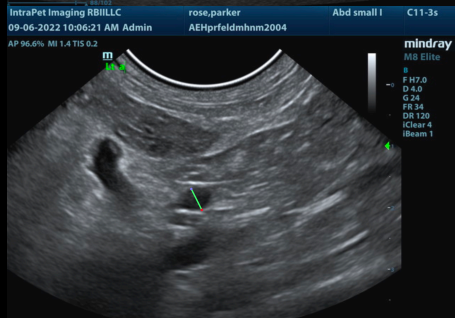
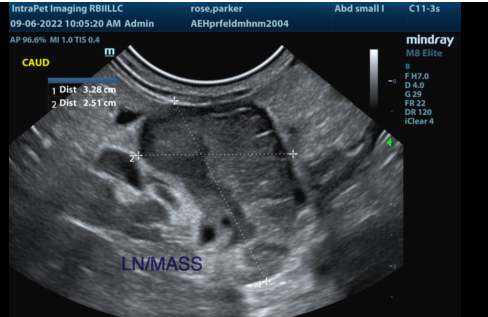
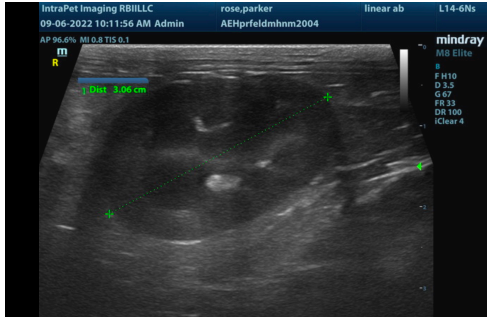
The spleen is hypoechoic and subjectively prominent, and there is a significantly heterogeneous liver. These changes could be consistent with inflammation, neoplastic infiltrates, etc.

As described above, I would start with a fine needle aspirate of the lymph node/mass effect. If this is not diagnostic, you could consider a fine needle aspirate of the spleen, pancreas, +/- liver. Recommend treatment for cholangiohepatitis/pancreatitis with Ursodiol, pain medications, fluids, etc. If symptoms are not improving, you could also consider a fine needle aspirate of the pancreas.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

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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.

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