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DATE PRESENTING CLINICAL SIGNS

2/23/23 P has chronic nail bed infection. Culture revealed Enterococcus faecalis and is being treated with Enrofloxacin. P has elevated liver values and needs a dental.

PATIENT

Archie Curran-Fisher

Current Medications: Enrofloxacin 22.7mg SID.
Lab Results: See attached.
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.

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

6/10/11

WEIGHT

9.58 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Northwind AH

REFERRING VET

Dr. Cross

INVOICE

45458

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. 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 calculi. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

The left kidney has a normal shape and size (4.85 cm). Overall echogenicity is normal with adequate 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.

The right kidney has a normal shape and size (4.27 cm). Overall echogenicity is normal with adequate 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.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.46 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. Occasional pinpoint hyperechoic foci are noted, most consistent with small areas of mineralization.

The right adrenal gland is normal in size measuring 0.47 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. Occasional pinpoint hyperechoic foci are noted, most consistent with small areas of mineralization.

Spleen

The spleen is subjectively normal in size (0.85 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 large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is mildly 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 gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are mildly dilated and tortuous, measuring at 0.34 cm with no evident intraluminal material or obstruction.

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 0.24 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 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.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There are occasional prominent mesenteric lymph nodes, examples measure 0.34 cm and 0.52 cm. Additionally, there are prominent lymph nodes surrounding the ileocecal junction with hyperechoic mesentery measuring 0.38 cm and 0.30 cm.

PRIMARY FINDINGS

- Prominent, mottled pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Large, heterogeneous liver – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.
- Prominent/tortuous cystic and common 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).
- Prominent muscularis layer of 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.
- Prominent/visible mesenteric lymph nodes – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

SECONDARY FINDINGS

- Echogenic debris in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.

- Hyperechoic foci in both adrenal glands – Findings are most consistent with mild mineralization. This can be a normal finding in older cats.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There are no prominent focal lesions visualized associated with the liver or biliary tract. Additionally, the gastrointestinal tract appears somewhat “ropey”, but no focal lesions are visualized. Given these findings, more diffuse disease would be suspected.

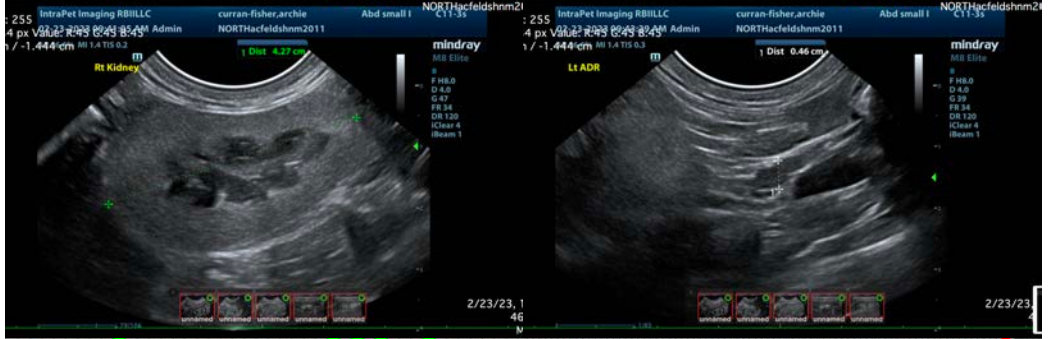
The liver is somewhat large and heterogeneous. This is most supportive of a primary hepatopathy. Consider a fine needle aspirate of the liver (provided coagulation parameters are normal). Additionally, the bile duct is somewhat dilated. This could be due to a non-visualized obstructive process, but bile duct dilation can be seen in some older cats as a normal finding. Continued monitoring of the bile duct over time is warranted. If progressive dilation is occurring, advanced imaging such as a CT scan may be warranted, looking for a small obstruction, stricture, etc.

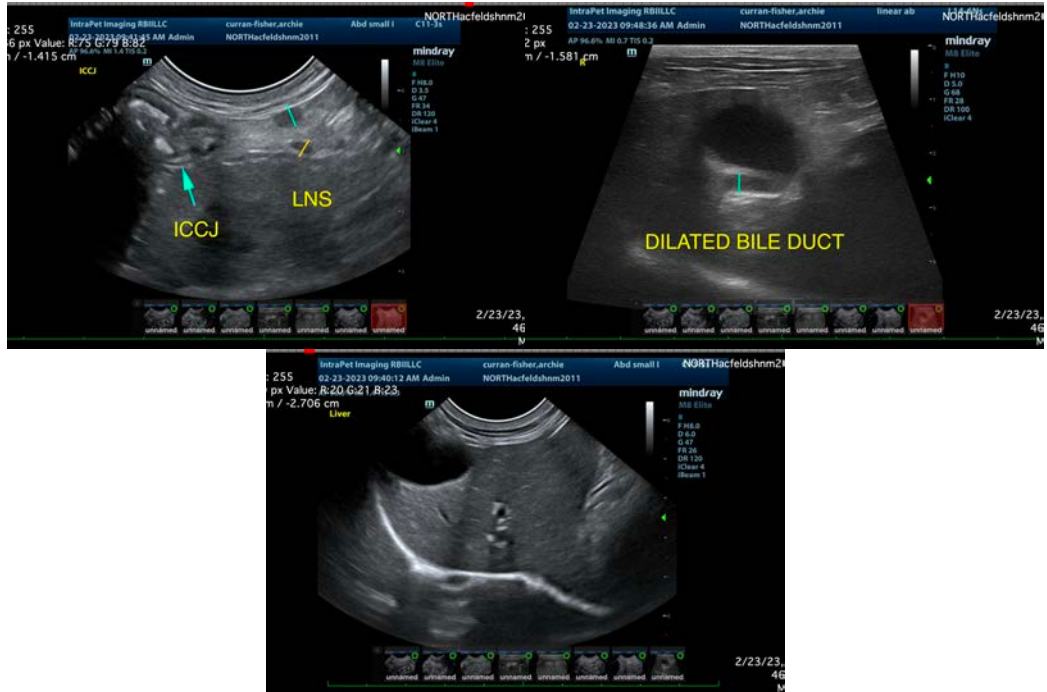
Additionally, the pancreas is slightly prominent, and with the thickened small intestine you could consider the possibility of Triaditis, possibly treating for pancreatitis while awaiting liver cytology results. Additionally, correlate these findings with a GI panel with a quantitative fPLI, TLI, cobalamin and folate, looking for additional supportive evidence of underlying gastrointestinal disease and pancreatic disease. If Triaditis is suspected, you could consider a novel protein/hydrolyzed protein prescription and probiotic therapy to support the GI tract, and possibly the use of Ursodiol and treatment for cholangiohepatitis, but I’m concerned about the parenchymal changes noted and strongly recommend a fine needle aspirate as an early step in diagnostics to help rule out round cell neoplasia.

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

If symptoms are progressing despite taking these measures, either a contrast CT scan or surgery may be indicated to obtain biopsies of the GI tract, liver, pancreas, and to evaluate the biliary tract.







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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