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DATE PRESENTING CLINICAL SIGNS

8/27/21 History: Presented for lethargy, not eating since Monday. She also has mucoid discharge from the R nostril. She is febrile with a temperature of 105.8 degrees F and very slightly icteric.

PATIENT

Joker Eubank-Warble

Current Medications: started on Famciclovir 125mg and 25 mg, Doxycycline bid; gave sq fluids.

SPECIES

Feline

Lab Results: Interestingly, her liver values are normal except for a bilirubin of 2.0 (0-0.9) mg/dL. Her HCT was 35% and a full CBC was sent out 8/26pm.

Radiographs: An x-ray shows probable hepatomegaly and possible thickened intestinal tract.

Date of Previous IntraPet Ultrasound: 5-25-21 (ECHO).

Sedation: not needed

Stat Report: not requested

BREED

DSH

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

SEX

Spayed Female

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.

AGE

5/15/15

The left kidney has a normal shape and size (3.7 cm). Overall echogenicity is normal with adequate 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.

WEIGHT

7 Pounds

The right kidney has a normal shape and size (3.83 cm). Overall echogenicity is normal with adequate 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 region of left adrenal (Cranial to left renal artery) is unremarkable but the adrenal is not distinctly visualized. No evidence of a mass effect.

HOSPITAL NAME

Cat Sense Feline
Hospital

The region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. No evidence of a mass effect.

REFERRING VET

Dr. Sinclair

Spleen

The spleen is subjectively normal in size, 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.

INVOICE

25052

Liver

The liver is subjectively normal in size with smooth peripheral margins. The parenchyma is heterogenous and hypoechoic 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 primarily anechoic. There is a prominent common bile duct, which is slightly tortuous and dilated. There is no mucoid debris within it, and no obstruction visualized, measuring 0.26 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 0.32 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 hypoechoic as 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 is a moderate lymphadenomegaly present. Occasional prominent mesenteric lymph nodes visualized measuring 0.32 cm. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

Other

Images of the thorax were provided with changes suggestive of irregularities on the pleura. Recommend 3-view thoracic radiographs.

PRIMARY FINDINGS

- Mildly heterogeneous liver – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.
- Hypoechoic, prominent pancreas – The pancreatic changes are most consistent with mild pancreatitis/pancreatic inflammation. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving.
- Prominent muscularis layer to the small intestine – The small intestinal wall changes are most consistent with an inflammatory process (i.e., inflammatory bowel disease) with a low possibility of emerging lymphoma.
- Pleural irregularities visualized – consistent with intrathoracic disease. Recommend thoracic radiographs.

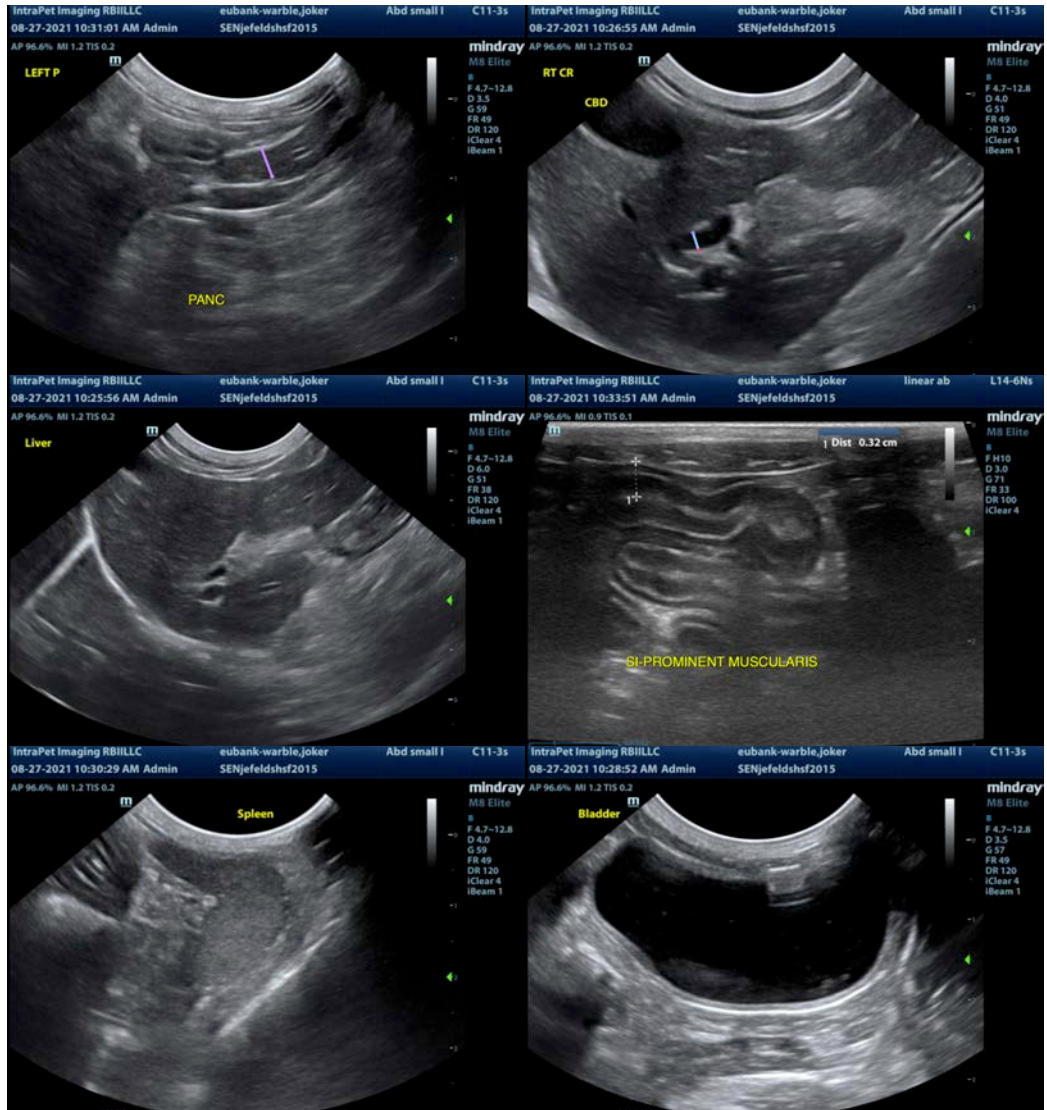
SECONDARY FINDINGS

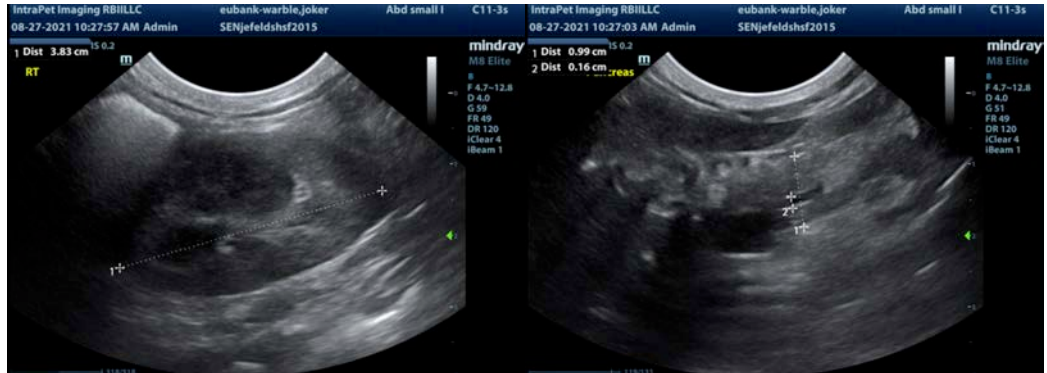
- Tortuous, mildly dilated common bile duct with no visualized obstruction – Dilation of the common bile duct could be consistent with a functional obstruction (i.e. primary hepatic disease resulting in hepatocellular swelling) or with an extrahepatic bile duct obstruction (ie. choledocholith, bile duct

tumor, pancreatic disease, other). This can also be a normal finding in older cats.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No obvious focal lesions were visualized to explain the reported lethargy, fever and icterus. I agree that it is highly unusual to see an elevated bilirubin without liver enzyme elevations. It is good that you are pursuing hemolysis as a possible differential. The changes observed on today's scan were relatively mild and non-specific. Consider testing for vector borne disease such as mycoplasma, which could cause hemolysis and a fever. Consider GI panel with fPLI, B12 and folate level to further evaluate the pancreas and small intestine for concurrent underlying disease. A viral etiology could be considered for the nasal discharge and the fever, and sepsis can cause an elevation in bilirubin, but typically liver enzymes are elevated as well. Recommend continued supportive care, broad-spectrum antibiotics, testing for pertinent infectious disease, and if liver enzymes are abnormal or liver function is abnormal you could consider a fine needle aspirate of the liver.





The information and recommendations provided are based on the images presented by the referring veterinarian. 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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