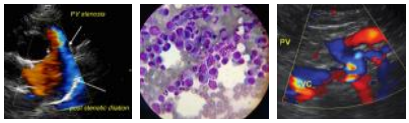
IMAGING PERFORMED BY

IntraPet.com



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DATE
6/24/22

PATIENT
Gus Uppercue

SPECIES
Feline

BREED
DSH

SEX
Neutered Male

AGE
6/15/08

WEIGHT
8 Pounds 11 Ounces

INTERPRETED BY
Beth Johnson, DVM DACVIM

HOSPITAL NAME
Chadwell AH

REFERRING VET
Dr. Gold

INVOICE
16305

PRESENTING CLINICAL SIGNS

History: Chronic elevated liver enzymes. New increase in total bilirubin.

Current Medications: Methimazole transdermal 5mg/0.05mL 1 Rotation QD.
Lab Results: ALT, AST, TB increased.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Pearce RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with incidental suspended lipid in a cat, possibly combined with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Left kidney is normal is size (3.81 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Right kidney is normal is size (4.06 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Adrenal Glands

Left adrenal gland is normal in size (0.4 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.4 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged (swollen contour). Mild parenchymal remodeling with diffusely mildly coarse architecture and increased portal markings is present. Multifocal non-discreet heterogeneous irregular nodules/masses of mixed echogenicity were present, primarily hyperechoic in echogenicity but continued multiple cysts of varying size are noted throughout the liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. One of the previously described liver masses is directly adjacent to the neck of the gallbladder. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal
The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas
Pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and has a mildly irregular undulating contour. Parenchyma is coarse with mixed echogenic remodeling noted. Pancreatic duct dilation is noted.

Free Abdomen
The mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Hypoechoic hepatomegaly. This appearance is consistent with an acute hepatopathy or acute cholangiohepatitis. Infiltrative neoplasia (round cell neoplasia) should also be considered.
- Suspect feline biliary cystadenomas based on appearance of the lesions, however, malignancy including biliary carcinoma cannot be ruled out, especially given this patients evidence of an inflammatory process and cholestasis within the liver.

Secondary Findings

- Urinary bladder debris
- Chronic pancreatitis
- Reactive mesenteric lymphadenopathy, infiltrative neoplastic disease cannot be ruled out but is considered less likely

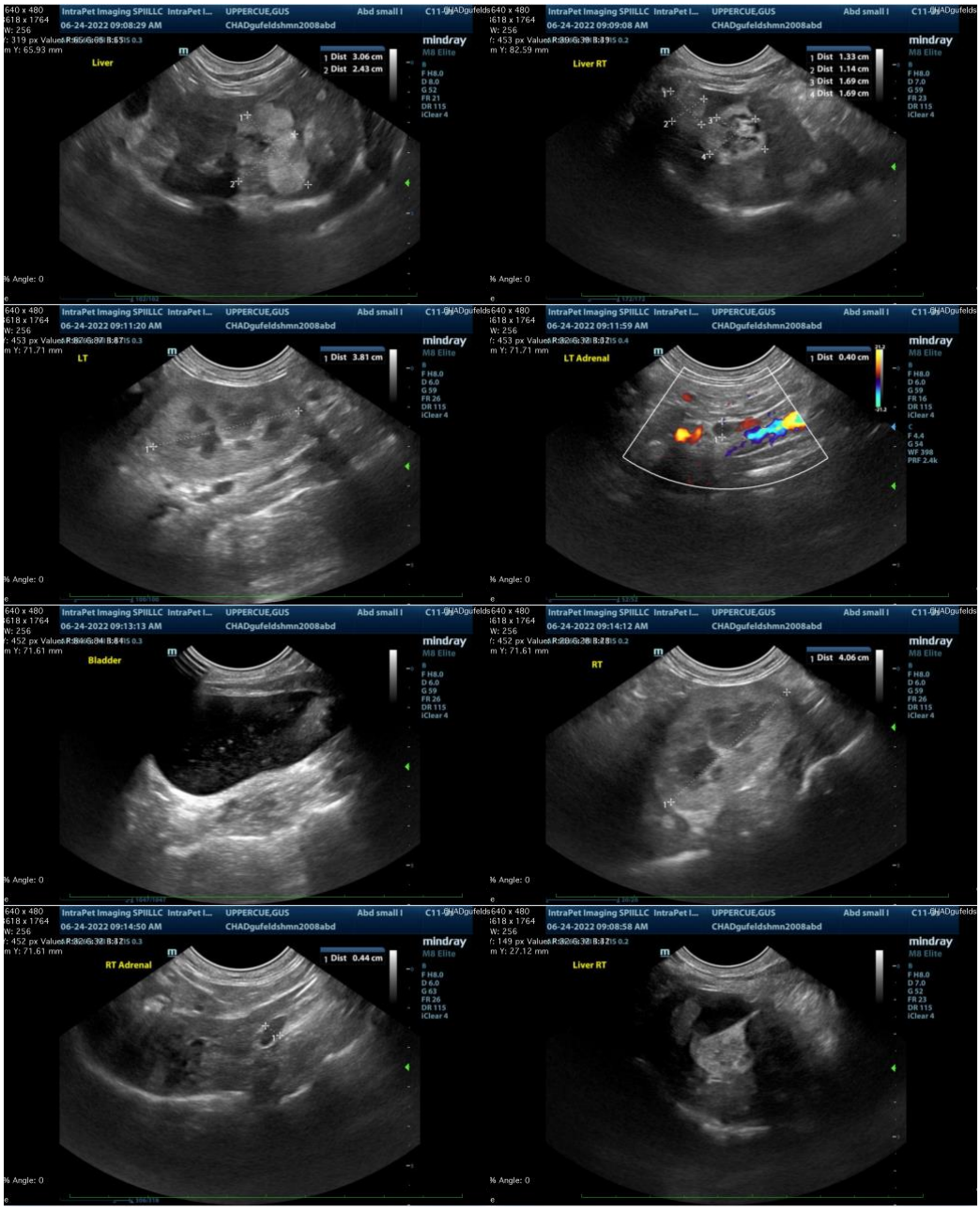
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

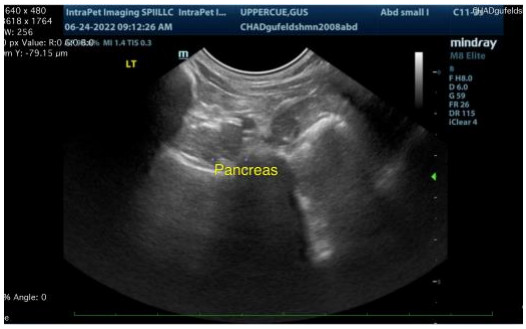
1. A fine needle aspirate of the liver is recommended, if patients coagulation status is appropriate, including an aspirate of the diffuse hypoechoic parenchyma, as well as the mixed cystic masses throughout the parenchyma to determine malignancy versus incidental feline biliary cystadenomas on top of infiltrative round cell neoplasia or on top of cholangiohepatitis, which is resulting in the cholestatic pattern reported in this patients labs.

2. Urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is

present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

3. In the meantime, recommendations include medical management of cholangiohepatitis/chronic smoldering pancreatitis with IV fluids, antiemetics, appetite stimulants (if needed), hepatoprotective nutraceuticals, such as ursodiol and/or Denamarin and broad-spectrum antibiotics with close monitoring of values for improvement. If a diagnosis cannot be obtained cytologically and this patient progresses and/or declines, exploratory laparotomy for biopsies may be necessary.





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.

Beth Johnson, DVM DACVIM
Beth.Johnson@SonoPath.com