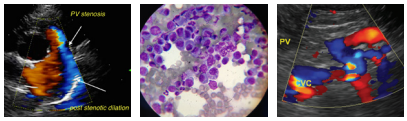
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

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DATE

4/21/22

PATIENT

Aida Gonzales

SPECIES

Feline

BREED

Persian

SEX

Spayed Female

AGE

4/19/19

WEIGHT

4.9 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Timonium AH

REFERRING VET

Dr. Montessi

INVOICE

37055

PRESENTING CLINICAL SIGNS

Chronic vomiting, weight loss.

Current Medications: Starting Metronidazole @ 10mg/kg BID, Starting Fortiflora, starting Cerenia @ 2mg/kg SID.
Lab Results: Non-regenerative anemia, hyperglobulinemia, hx of hypoalbuminemia. ALT 145 (<130), GGT 14 (<4), Tbili 2.0 (<0.9).
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

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 (4.02 cm) with numerous cortical cysts varying in size from 1.2-0.2 cm. Overall echogenicity is slightly hyperechoic with poor 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.

The right kidney has a normal shape and size (4.02 cm) with occasional small cortical cysts. Overall echogenicity is slightly hyperechoic with poor 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.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.31 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 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.

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.

Liver

The liver is large in size, and normal in 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.

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 bile duct appears somewhat tortuous and dilated with intraluminal mucoid debris visible. It measures at a maximum of 0.85 cm with no focal obstruction observed.

Gastrointestinal

The stomach is dilated with a large amount of fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering 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. The duodenum measured as normal (between 0.13-0.38cm in wall thickness) and the jejunum measured as normal (between 0.15-0.36cm.) 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

There is a small to moderate amount of free abdominal fluid. There are some prominent cranial mesenteric lymph nodes visualized measuring 0.43, 0.27 cm. The omentum is of increased echogenicity in the cranial abdomen.

PRIMARY FINDINGS

- Large, heterogeneous liver – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.
- Dilated, tortuous bile duct with some intraluminal mucoid debris – 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).
- Decreased corticomedullary distinction with renal cortical cysts visualized – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. This is a likely indicator of early polycystic renal disease in this breed.
- Echogenic debris in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.
- Hypoechoic, prominent pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Small to moderate amount of free abdominal fluid
- Mild cranial abdominal lymphadenopathy – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

SECONDARY FINDINGS

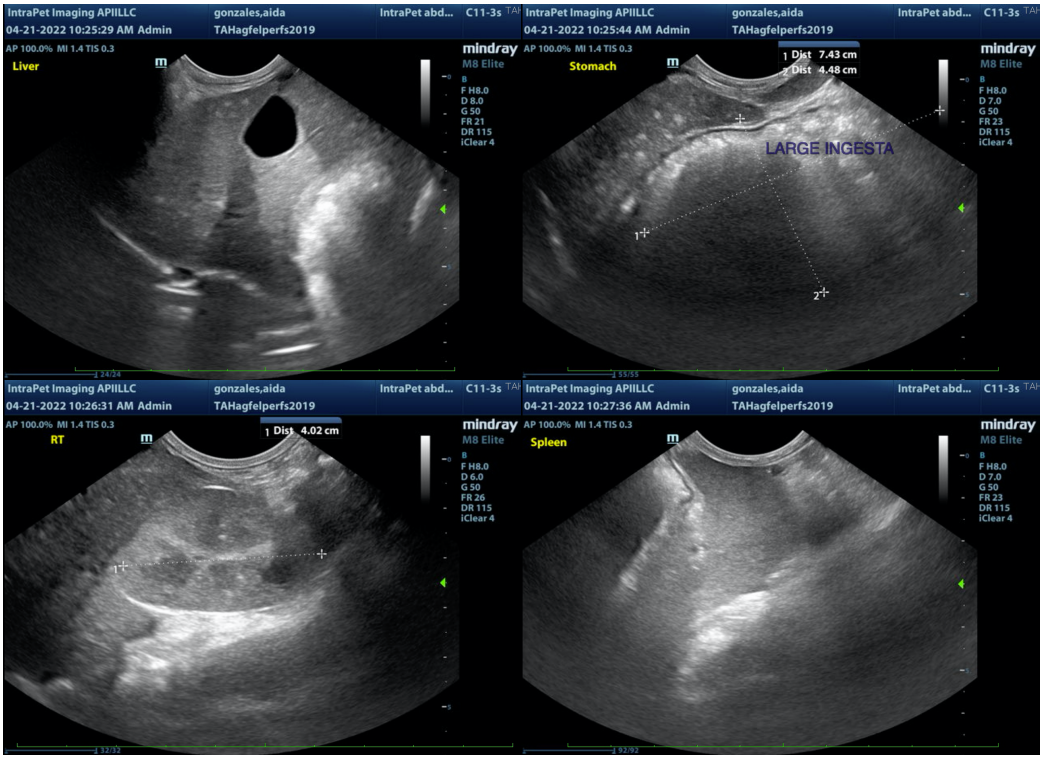
- Large amount of ingesta visualized within the gastric lumen – There is a large amount of gastric ingesta, which is shadowing and impairing visualization of the bile duct and cranial abdomen.

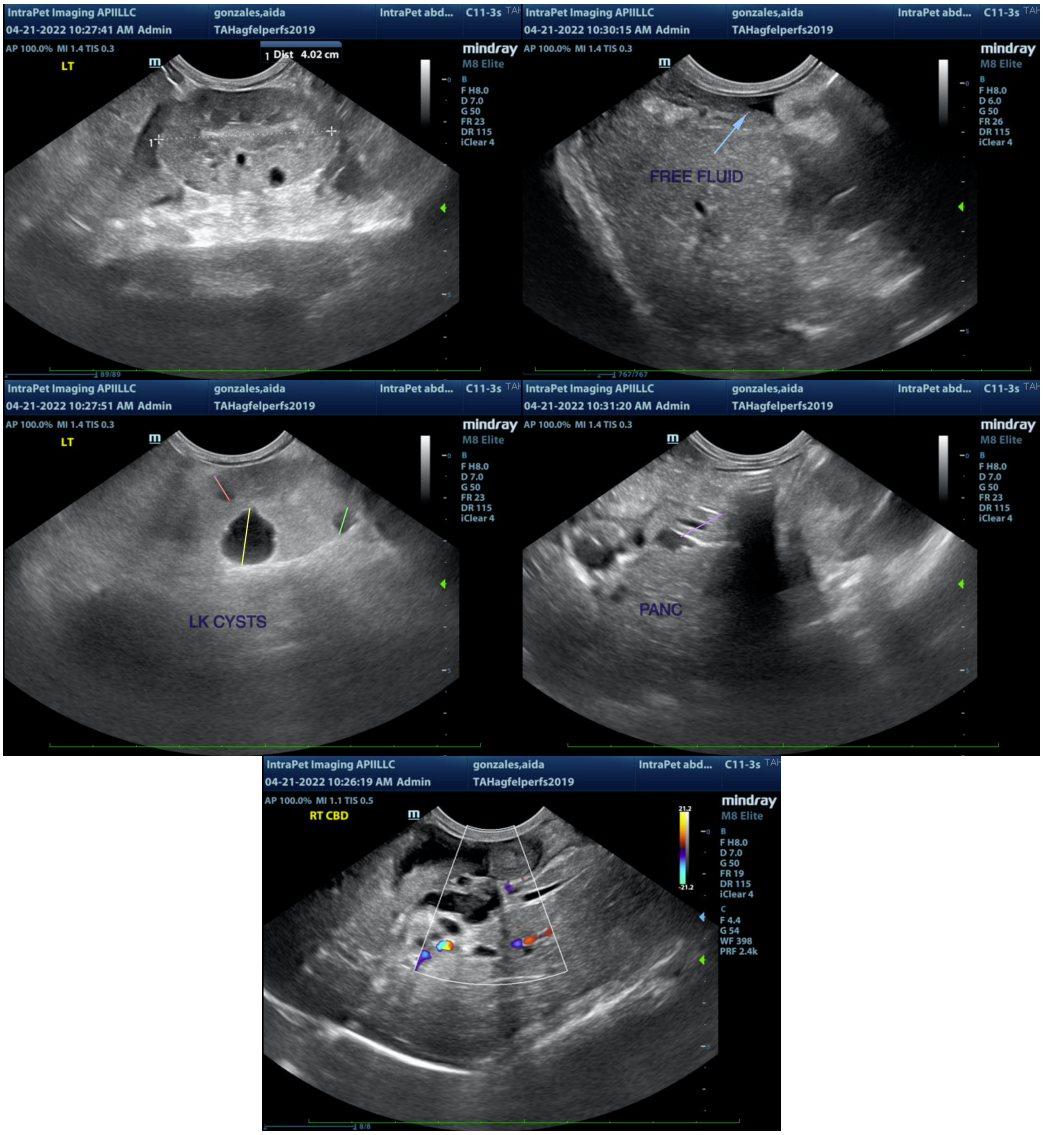
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver is very large and heterogeneous. Additionally, the bile duct appears somewhat dilated, thickened, and has some mucoid debris. While I suspect that primary liver disease is present, there also could be a component of biliary disease at play. There is generalized inflammation in the cranial abdomen, which appears associated with the liver, pancreas, and biliary tract. Concerning differentials would be cholangiohepatitis, FIP, lymphoma, etc. Recommend a fine needle aspirate of the liver, starting Ursodiol, fluid analysis and cytology on the abdominal fluid, and continual monitoring of the biliary tract for evidence of an obstruction. If concern for FIP is high based on the quality of the abdominal effusion, you could consider an FIP PCR to Auburn University on a blood sample or abdominal fluid. If a cytologic diagnosis cannot be obtained, then consider obtaining surgical biopsies.

There is decreased corticomedullary distinction in both kidneys along with some cortical cysts. In this breed, I would be concerned for early polycystic renal disease, and this should continue to be monitored. Recommend blood pressure, urine protein/creatinine ratio, and additionally urinalysis and culture, based on the echogenic urine in the urinary bladder.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.





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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