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Clinical Sonography & Telecytology
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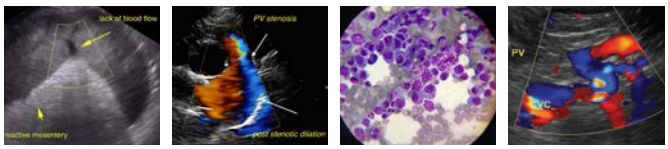

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1-800-838-4268 info@sonopath.com

PATIENT
Iris Ahokas

SPECIES
Feline

BREED
DSH

SEX
Spayed Female

AGE
13 Years 2 Months

WEIGHT
7.6 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Dr. Sarah Green

HOSPITAL NAME
Healing Spirit

REFERRING VET
Dr. Sarah Green

INVOICE
43002

DATE
11/29/22

PRESENTING CLINICAL SIGNS

History of hyperthyroidism. Presented due to constipation with a recent anorexia and lethargy. Abnormal PE/Chem/CBC/UA Results: mid icterus, ALT=226 (20-100) U/L, ALP=715 (10-90) U/L, Tbili =5.8 (0.1-0.6) mg/dL

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.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia or infarcts observed. The left kidney measures 4.1 cm. The right kidney measures 4.0 cm. Non-obstructive areas of mineralization/nephroliths are noted in both kidneys. A small cortical cyst is present in the left kidney. In the right kidney, there is a larger, approximately 3.0 cm in diameter cortical cyst on the cranial pole of the right kidney.

Adrenal Glands

The adrenal glands are unable to be well visualized in these images.

Spleen

The 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

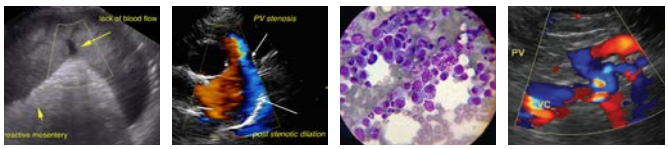
Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. 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 mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is 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 (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). 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.



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The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

- **Hyperechoic hepatomegaly** – This appearance is most consistent with benign hepatic lipidosis. Infiltrative disease such as amyloidosis or round cell neoplasia, such as mast cell tumor or less likely, lymphoma, is also possible.
- Age related kidney changes with non-obstructive nephrolithiasis bilaterally and cortical cysts including a large cortical cyst on the cranial pole of the right kidney.
- Urinary bladder debris

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is no visible evidence of post-hepatic obstruction/cholestasis in this patient, making intrahepatic cholestasis as a cause for the reported increased bilirubin the top differential. Hepatic lipidosis may be present secondary to anorexia caused by the reported constipation versus another cause for inappetence, or infiltrative disease affecting the liver cannot be definitively ruled out. Therefore, recommendations include a fine needle aspirate of the liver if patient's coagulation status is appropriate.

Additionally, if not recently evaluated, a 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.

In the meantime, if indicated, medical management of the reported constipation is recommended in addition to management of possible hepatic lipidosis in the form of enemas (if necessary), stool softeners, fluid therapy, antiemetics, hepatic nutraceuticals, +/0 broad-spectrum antibiotics, and most importantly nutritional support such as an appetite stimulant, or if necessary, feeding tube placement.

The large cortical cyst in the right kidney could be aspirated to rule out a concurrent infection there. However, the finding is likely incidental, and monitoring versus further intervention may be appropriate, unless another cause for inappetence cannot be determined and it is believed clinically to be playing a larger role.

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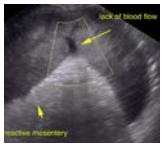
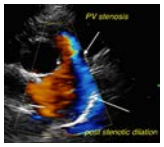
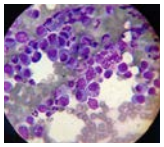
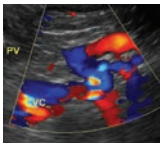

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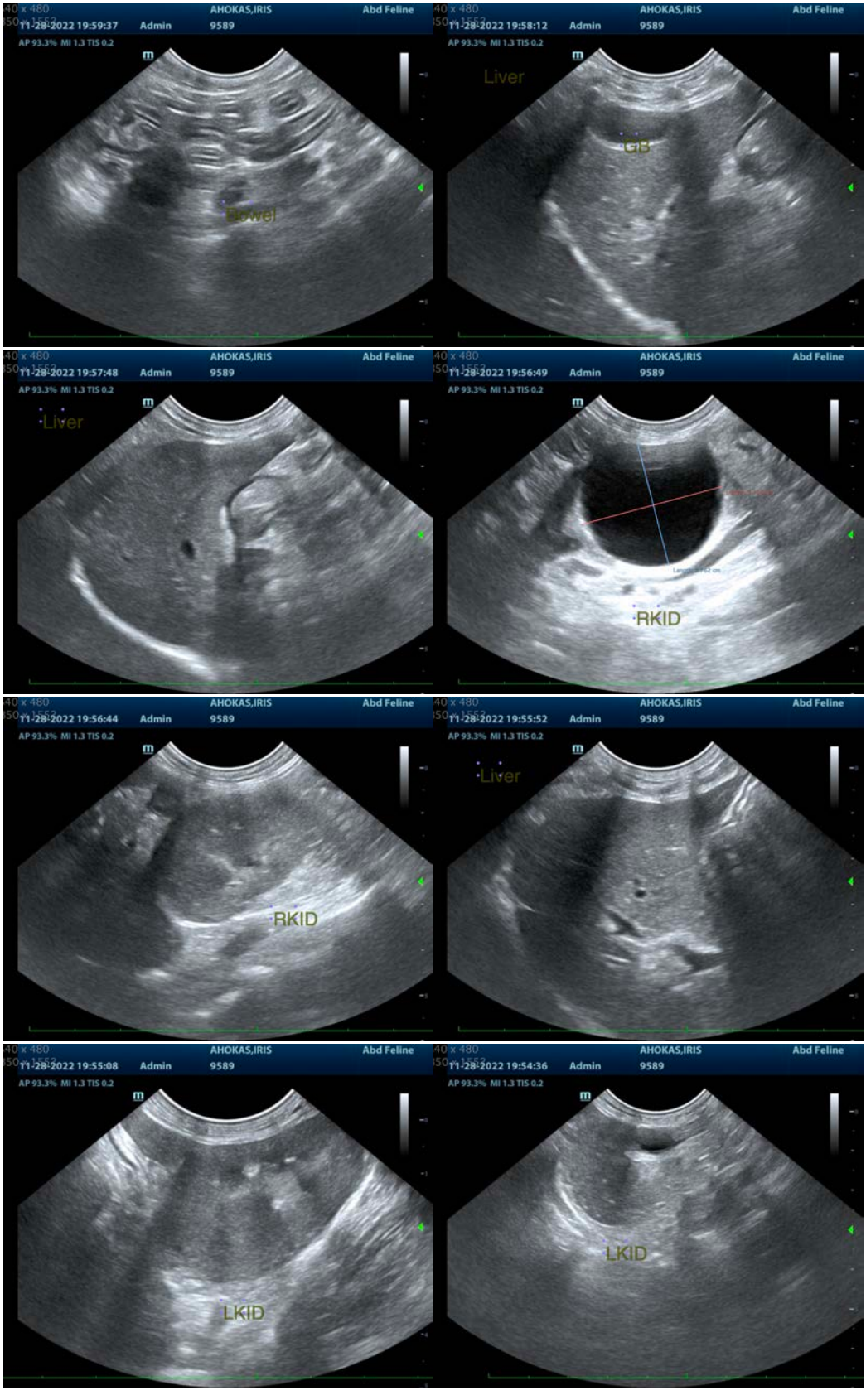

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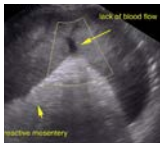
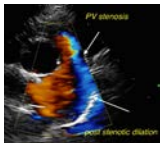
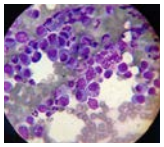
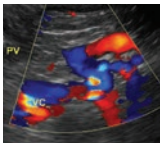

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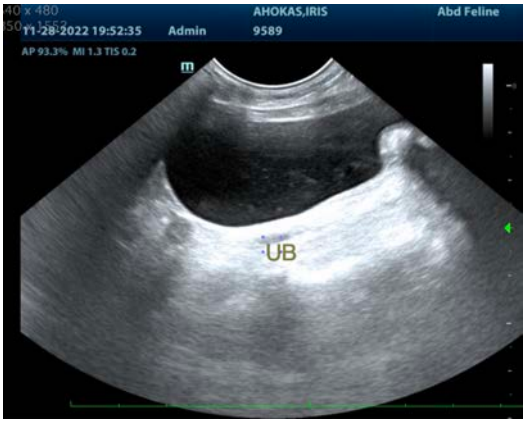

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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