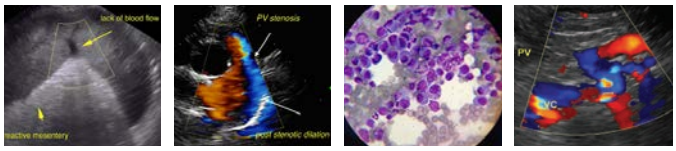
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Ariel Boyd

SPECIES

Canine

BREED

Mixed

SEX

Spayed Female

AGE

8 Years

WEIGHT

66 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Yorkville AH

REFERRING VET

Dr. Oedwaldt

INVOICE NUMBER

34042

DATE

1/6/22

PRESENTING CLINICAL SIGNS

Patient has had hematuria since September. UA and culture showed a UTI (E.coli). Patient did not get better with treatment. Patient is now vomiting, anorexia and weight loss. Bloodwork showed severely elevated liver enzymes, tbil is up too. Concern for infection vs neoplasia vs end stage liver

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is overdistended with sonolucent fluid and echogenic sediment. Near the dependent portion of the bladder, there is a thick, hyperechoic, walled off structured with an anechoic center that measures 6.5 cm x 2.6 cm. The urinary bladder trigone and visible pelvic urethra are normal in wall thickness with smooth mucosal surfaces.

Right kidney is normal in size (7.55 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.

Left kidney is normal in size (6.7 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

Right adrenal gland is normal in size (2.8 cm long x 1.0 cm thick), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Left adrenal gland is normal in size (2.0 cm long x 0.63 cm at cranial pole and 0.54 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable. 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.

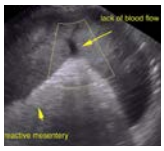
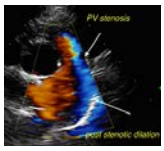
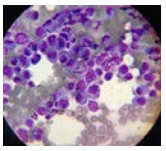
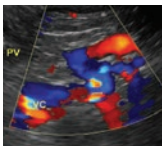
Liver

Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. A 2.7 cm homogeneous, hypoechoic nodule is seen in the cranial liver, up against the diaphragm. A homogeneous, hyperechoic nodule measuring about 2.5 cm is near the gallbladder. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is moderately distended with anechoic bile and gravity dependent echogenic sediment. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is mildly distended with very echogenic reverbation artifact from intraluminal gas.

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There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. 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.

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

Pancreas

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 peritoneal effusion. Hyperechoic reactive medial iliac lymphadenopathy is noted.

ULTRASONOGRAPHIC FINDINGS

- Overdistended urinary bladder with a large volume of echogenic debris and a walled of area in the dependent portion of the bladder, most consistent with mucus/sludge/early abscess surrounded by likely hyperreactive medial iliac lymph nodes.
- Gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.
- Well defined liver nodules – Differentials for which include primarily benign changes such as nodular hyperplasia. However, infiltrative primary hepatic neoplasia versus round cell neoplasia versus metastatic neoplasia are possible, but considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recommendations include placing a urinary catheter to flush out the urinary bladder as well as possible until clear urine is obtained if possible. If the patient is able to urinate on her own, recommendations are not to leave in an indwelling catheter due to the increased risk of further bacterial contamination over time. This recommendation should be followed with aggressive 4 quadrant antibiotic coverage, fluid therapy, pain management, as well as medical management of secondary gastrointestinal signs. Liver protectants such as Denamarin may also be considered.

The liver changes are most likely benign/secondary in this case. However, monitoring of the liver enzymes and the urinary bladder for changes should be performed during the course of medical therapy. If liver enzymes don't improve and/or progress, a fine needle aspirate of the liver nodules is recommended if patient's coagulation status is appropriate.

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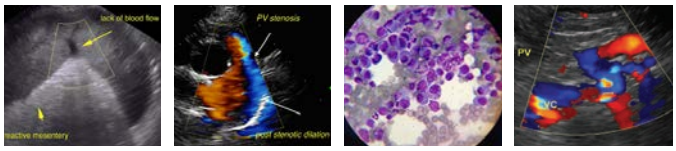

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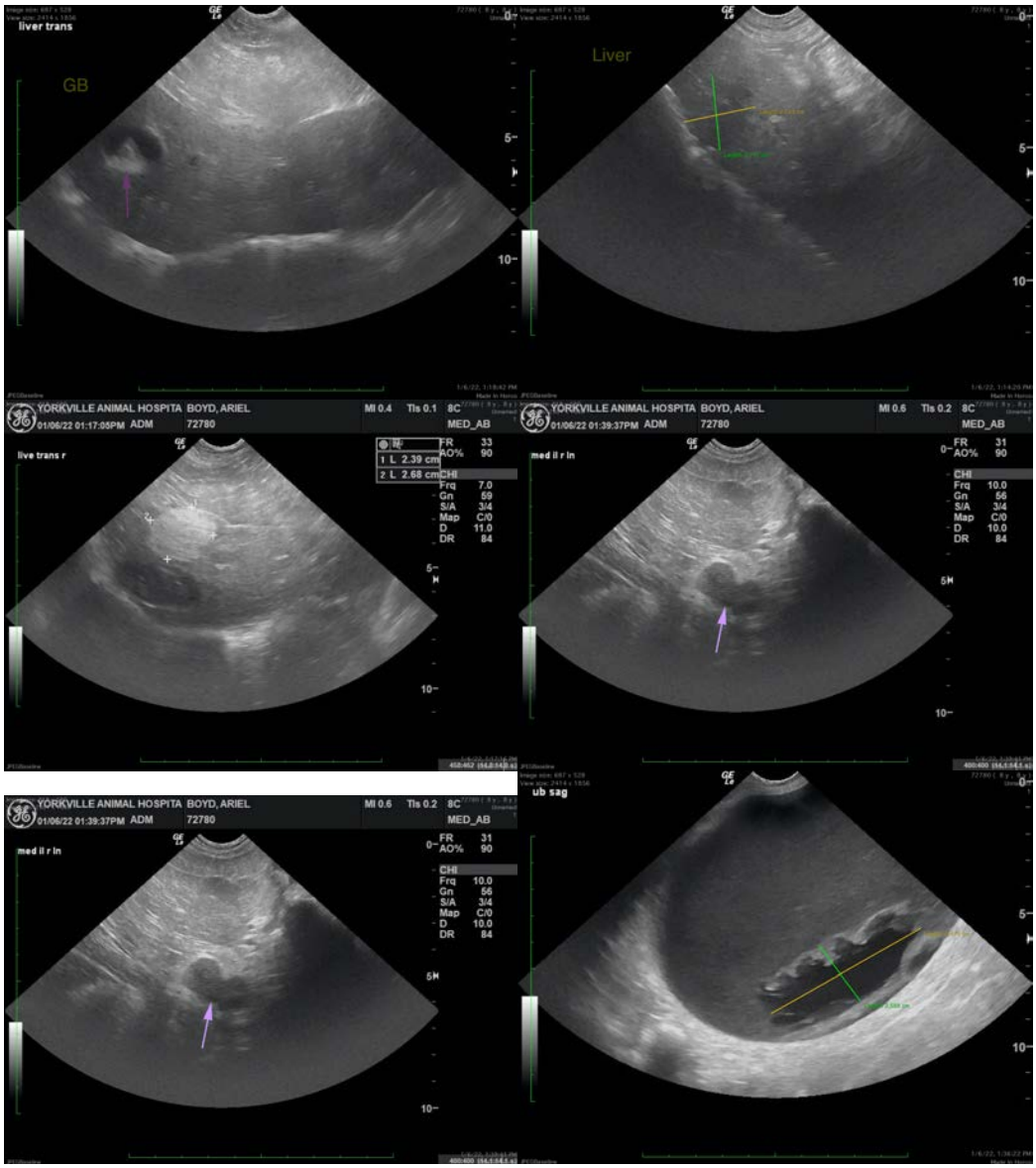

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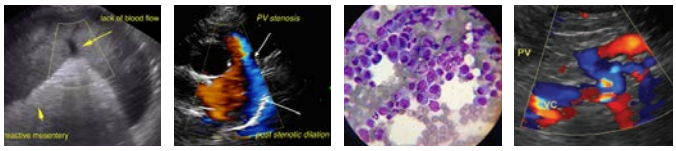

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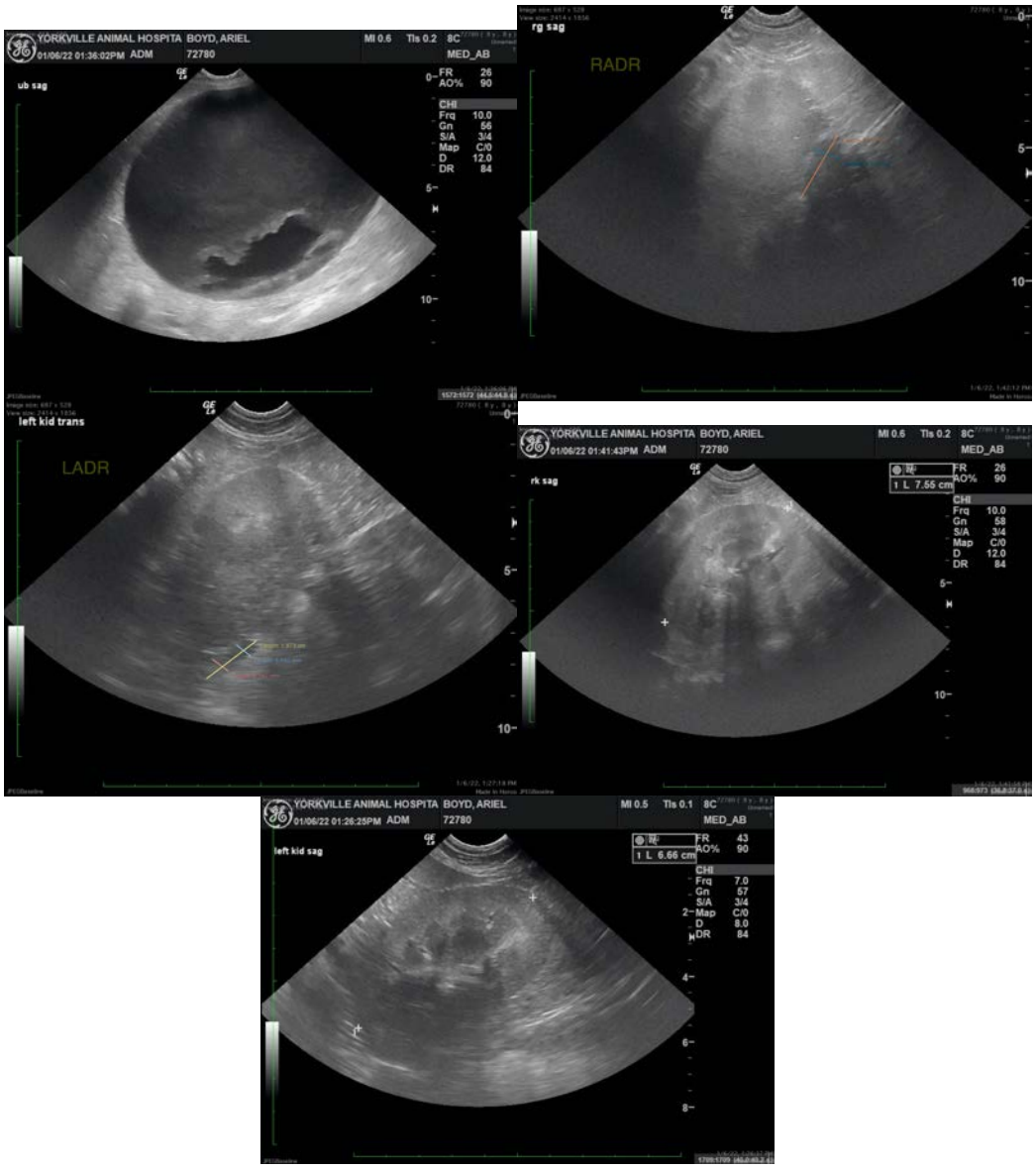

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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