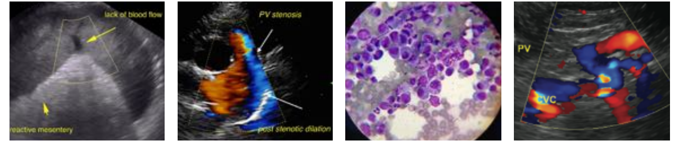
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Kona Romero

SPECIES
Canine

BREED
Pit Bull

SEX
Spayed female

AGE
16 years

WEIGHT
38 lbs

INTERPRETED BY
Tam Mengine, DVM, DABVP (canine/feline practice)

IMAGING PERFORMED BY
Dr. Mengine

HOSPITAL NAME
Stoney Creek VH

REFERRING VET
Dr. Mengine

INVOICE
32427

DATE
8/18/22

PRESENTING CLINICAL SIGNS

History: Patient has a 2-3 weeks history of diarrhea. Has lost 9 pounds in last 2 months, BCS 3/9. Has become a bit ataxic in last few days. CBC / Chem from 8/3 shows mildly elevated ALT / ALP (~ 300) else unremarkable. Appetite is great. GI panel, resting cortisol and bile acids pending

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is minimally distended with anechoic urine, and no luminal sediment is present. The ureteral papillae, trigone and pelvic urethra are of normal appearance, and the ureters are not visible (normal). No masses, calculi or mucosal irregularities are noted.

Both kidneys are hyperechoic, and exhibits poor cortico-medullary differentiation. There is no evidence of nephrolithiasis, mineralization, pyelectasia or hydronephrosis. The proximal ureter is not visible (normal). There is a 6.4 mm cortical cyst in the left kidney. Both kidneys demonstrate a minor corticomedullary rim sign.

Adrenal Glands

The left adrenal gland is identified in their normal locations. They are normal in size and shape with appropriate parenchymal echogenicity and normal phrenic vasculature. The left adrenal gland height is (6.9) mm at the cranial pole and (5.1) mm at the caudal pole.

There is a small hyperechoic nodule arising from the cranial pole of the right adrenal gland, measuring (1.5 cm). The caudal pole is not distinctly visualized.

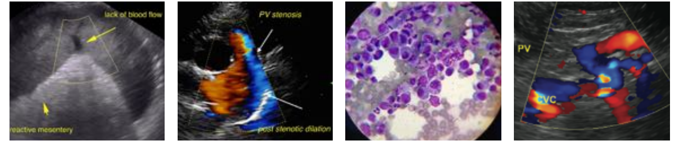
Spleen

The spleen appears diffusely enlarged. The capsular margins are irregular and the parenchyma is mottled with a honeycomb pattern. The splenic vasculature is normal with no evidence of congestion or thrombosis, and blood flow through the splenic hilus appears normal.

Liver

The liver is diffusely hyperechoic and subjectively enlarged. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis. There are several cystic lesions that measured up to 1.2 cm in diameter present.

The gallbladder is moderately distended with anechoic contents. The wall was thin and continuous with no focal lesions. There is a moderate amount of echogenic sludge present. The cystic and common bile duct is dilated and measured up to 6.1 mm with no visible obstruction.



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Gastrointestinal

The stomach is empty. The gastric wall is ( ) cm with normal deviations due to rugal folds, and exhibits appropriate wall layering. The pylorus is of normal appearance.

The small bowel has focal changes to the normal 1:3 muscularis to mucosa ratio. Wall measurements are increased in the jejunum up to (4.8) mm. Overall wall layering is preserved.

The visible portions of the colon are of normal thickness, up to (2.2) mm, with intact wall layering. The ileocecal junction is visualized and appears normal.

Pancreas

The areas of the limbs and body of the pancreas are isoechoic to the surrounding mesenteric fat, with normal capsular appearance. There is no evidence of peripancreatic inflammation. The pancreatic duct appears normal.

Free Abdomen

There is no evidence of free fluid within the peritoneal cavity. The omentum and intra-abdominal fat are of appropriate echogenicity. Enlarged abdominal lymph nodes are not observed. The aortic trifurcation has normal blood flow with no evidence of thrombosis.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Splenomegaly with mottled parenchyma and irregular capsule.
- Infiltrative bowel changes.

SECONDARY FINDINGS:

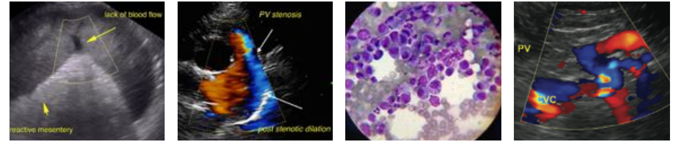
- Chronic renal changes.
- Dilated cystic duct.
- Right adrenal nodule.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The splenic changes are concerning for round cell neoplasia, but could also be consistent with severe splenitis. Ultrasound-guided FNA of the spleen with a 25-gauge needle is recommended.

The changes in the gastrointestinal tract are suggestive of infiltrative bowel disease, including both inflammatory bowel disease or gastrointestinal lymphoma. Recommendations include:

- ❖ fecal parasite testing and empiric fenbendazole treatment
- ❖ trials with a novel protein or hydrolyzed diet



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- A complete GI panel, with cobalamin supplementation if indicated.
- Empiric therapy with prednisolone at 2-4mg / kg daily could be considered if a diet trial is unsuccessful.
- Definitive diagnosis would require biopsy of the affected tissue, ideally with intra-operative ultrasonographic guidance . If there is concurrent lymphadenopathy, ultrasound-guided sampling of the lymph node using a 25 or 22G needle could be considered. (dog only - Resting cortisol levels could also be considered).

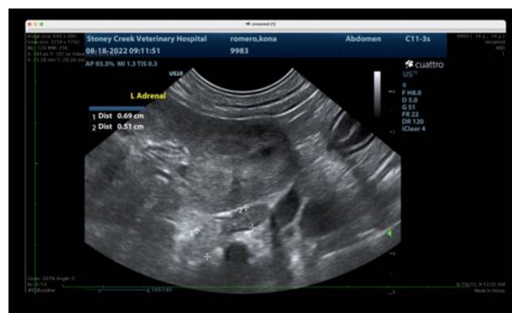
The changes in the liver are non-specific and could be attributed to endocrine disease, other vacuolar hepatopathies, reactive hepatopathy, storage hepatopathy, chronic infectious or inflammatory disease (including leptospirosis), hepatic lipidosis, or less likely neoplasia. Ultrasound-guided or laparoscopic biopsies would be needed for definitive diagnosis. Recommendations include:

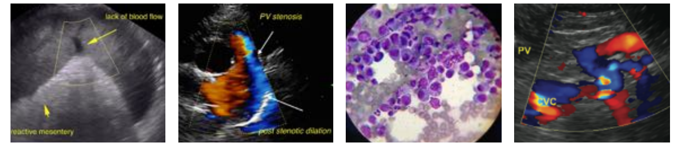
- screening for diabetes mellitus and hyperlipidemia if not already performed
- testing for Cushing's disease is recommended only if clinical signs support the diagnosis
- bile acid testing is recommended to further assess severity of hepatic disease - if elevated then liver biopsies should be considered
- if bile acids are normal, but the ALT is increased, then initiation of liver support therapies such as SAMe, Vitamin E and ursodiol, along with serial monitoring of liver enzyme levels every 2-3 months, could be initiated

The changes in the kidneys are consistent with chronic renal disease. Recommendations include:

- a CBC, chemistry panel, urinalysis, urine protein creatinine ratio and blood pressure measurement are recommended
- urine culture should also be considered, particularly if urine sediment is active
- dietary and supportive care recommendations can be made, based on the staging of the disease as outlined in the IRIS guidelines

The dilated cystic duct is of uncertain significance. There is no reported history of hyperbilirubinemia, nor is there evidence of intrahepatic biliary obstruction so this may be an incidental finding.





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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.

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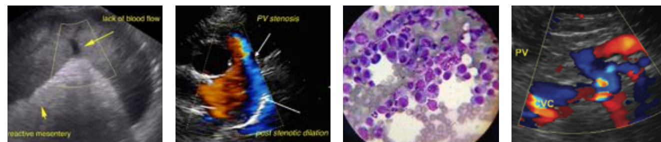

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