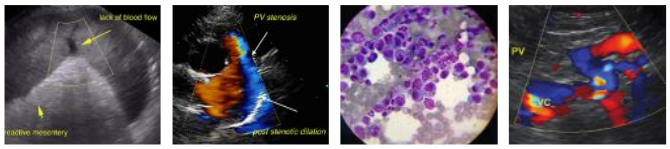
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Ollie Keller

SPECIES

Canine

BREED

Australian Shepherd

SEX

Neutered Male

AGE

7 Years

WEIGHT

25 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Nicole Gotfredson

HOSPITAL NAME

Buffalo VC

REFERRING VET

Teresa Bessler

INVOICE

16885

DATE

8/17/22

PRESENTING CLINICAL SIGNS

History: Diabetic, dog came in last night acting like he was having seizures. BG=69, diarrhea.

Abnormal PE/Chem/CBC/UA Results: T-4: 0.9, SDMA=17, WBC=24.34, TP=3.0, CA=6.7, ALB=1.1, Glob=1.9, CHOL=55, AMYL=394, Urinalysis pending

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Prostate is normal in size, echotexture and echogenicity for a neutered male.

Left kidney is normal is size (4.0 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. A hyperechoic band parallel to the corticomedullary border is present.

Right kidney measures 4.7 cm in size. Architecture is difficult to evaluate. There is no evidence of pathology associated with the kidney in these images.

Adrenal Glands

Left adrenal gland is normal in size (0.47 cm at cranial pole and 0.44 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is unable to be well visualized in these images.

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.

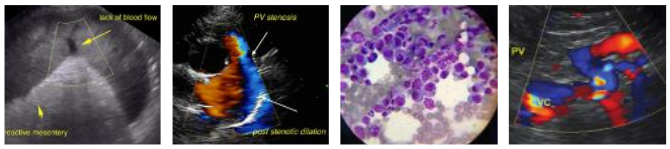
Liver

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. No focal lesions are observed. 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. 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.



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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

The pancreas is unable to be well visualized. **See Other category.

Other

The entire abdomen contains markedly enhanced hyperechoic fat and mesentery, most noticeable in the cranial abdomen around the area of the pancreas. No appreciable free fluid or lymphadenopathy can be observed.

ULTRASONOGRAPHIC FINDINGS

- Medullary rim sign in the left kidney - This finding is of unknown clinical significance and can be a normal variant, often idiopathic. Medullary rim sign can be present with renal disease including FIP, lymphoma, hypercalcemic nephropathy, Leptospirosis, tubular disease, other and should be interpreted in combination with other more specific indications of kidney disease such as isosthenuria, proteinuria, azotemia, etc. This is a common incidental finding in patients with diabetes mellitus.

- Diffusely hyper-reactive/hyperechoic mesentery and fat. This finding may be secondary to acute pancreatitis or other vasculitis versus a primary infiltrative disease affecting the mesentery, such as carcinomatosis or the like. This differential is considered less likely but possible.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

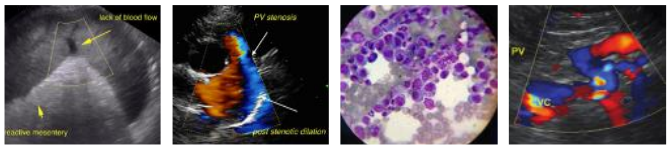
This patients laboratory changes could certainly be secondary to pancreatitis with the hypoglycemia brought on potentially by insulin administration while not eating well or potentially too much insulin, etc. However, malabsorptive gastrointestinal disease and hepatic disfunction can have similar chemistry panels. Therefore, recommendations include:

- A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

- Bile acids is recommended.

- A urinalysis is recommended to assess for possible proteinuria, however, it is reportedly already pending.

In the meantime, supportive/symptomatic medical management of possible pancreatitis with antiemetics, gastroprotectants, appetite stimulants or nutritional support (as needed) with a low-fat diet, pain management, broad spectrum antibiotics and fluid therapy is recommended. If possible, a fresh frozen plasma transfusion or even albumin transfusion may be beneficial. An ionized calcium is recommended to help guide potentially necessary calcium supplementation. No insulin is recommended until the patient is hyperglycemic again, at which time restarting this patients normal insulin at a lower dose is recommended. Follow up imaging is recommended for better



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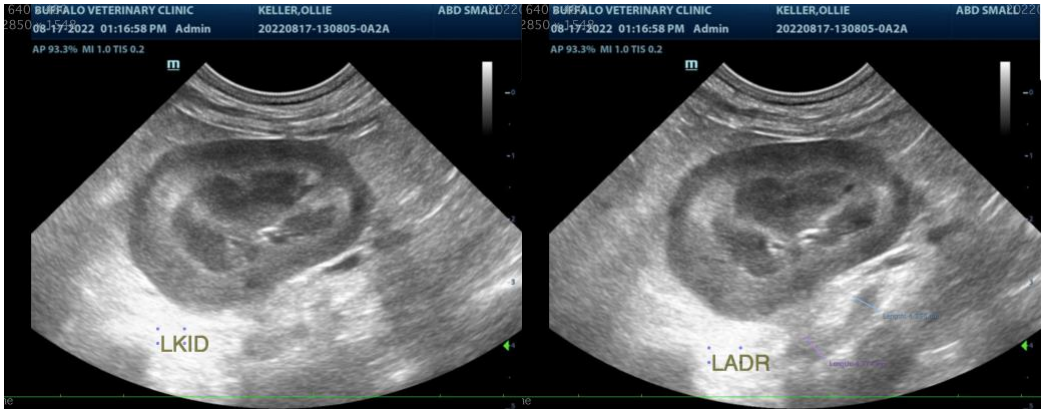
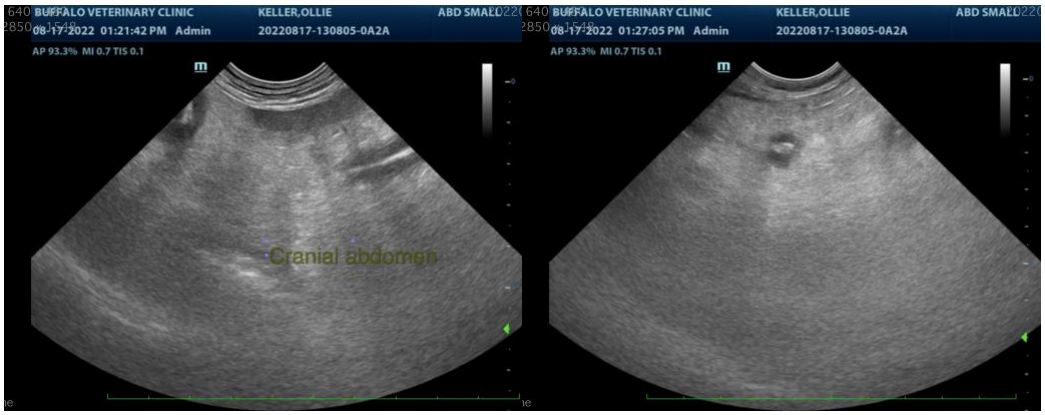
visualization/identification of underlying pathology, after addressing some of the inflammatory change making it difficult at this time.

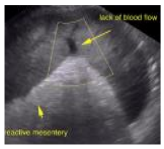
Alternatively, if the reactive mesentery does not improve, a fine needle aspirate of it may be recommended, if patients coagulation status is appropriate.

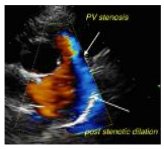


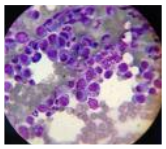
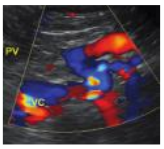


The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I





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can be of any further assistance please contact me.

Beth Johnson, DVM DACVIM

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