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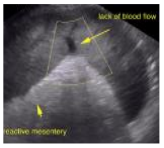
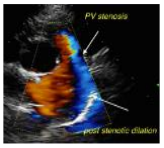
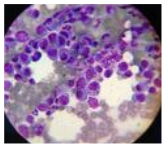
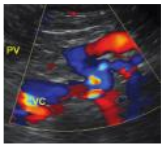
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
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PATIENT
Mattie Cousins

SPECIES
Canine

BREED
Mini Schnauzer

SEX
Spayed Female

AGE
12 years, 8mos

WEIGHT
8.04 kg

INTERPRETED BY
Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

IMAGING PERFORMED BY
Jolee Stegemoller, DVM

HOSPITAL NAME
North Idaho AH/VCA

REFERRING VET
Jolee Stegemoller, DVM

INVOICE
11392

DATE
8.11.22

PRESENTING CLINICAL SIGNS

History: Several-month history of intermittent vomiting and diarrhea with accompanying hyporexia. Previously had 2 ultrasound and serial bloodwork (including resting cortisol) at other veterinary hospitals. Has been prescribed Cerenia, famotidine, metoclopramide, metronidazole, hydrolyzed diet (has not completed full diet trial). Previous DDx include IBD, colitis. Current concerns for pancreatitis, cholangiohepatitis. Added gabapentin to therapy after ultrasound along with continuing GI support and trying low fat diet. Previously has issues with food hypersensitivity, so recommended low fat hydrolyzed diet.

Abnormal PE/Chem/CBC/UA Results: Repeating bloodwork today with reference laboratory to include specCPL, triglycerides, bilirubin profile (chem 25), CBC, and urinalysis. Patient has mild pain on cranial abdominal palpation and during sonogram. Attached report from April 2021 ultrasound interpretation read by DACVR and medical notes.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. A scant amount of suspended, echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The **left kidney** is normal size (4.24 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The **right kidney** is normal size (4.82 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The **left adrenal gland** is normal size (0.40 cm at cranial pole) (0.38 cm at caudal pole) (2.08 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The **right adrenal gland** is normal in size (0.56 cm at cranial pole) (0.32 cm at caudal pole) (2.09 cm in length); with a normal shape and smooth peripheral contours. A small (0.16 cm) hyperechoic nodule is observed at the mid to caudal aspect. The remaining glandular echogenicity and detail are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The **spleen** is normal in size (1.72 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The **liver** is prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion.

The **gall bladder** is mildly to moderately distended. The wall is thickened (up to 0.53 cm), irregular, and edematous with a "double-walled" effect. A small amount of aggregated, echogenic debris/sludge is observed within the lumen, most of which is adhered to the wall. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The **gastric lumen** is not distended. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is not dilated. The small intestinal wall is borderline thickened (up to 0.39 cm) with retention of the normal layering pattern. There is disruption in the normal 1:3 muscularis: mucosal ratio in most segments. In addition, there is thickening of the submucosal layer. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas

The region of the **pancreas** is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

There is no evidence of free fluid. Two prominent medial iliac **lymph nodes** are visualized, the largest measuring 1.38 cm in length. A few prominent mesenteric lymph nodes are also seen (the largest measuring 3.55 cm in length).

Other

A 1.66 x 0.54 cm irregular echogenic nodule is observed in the left mid-abdomen.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The small intestinal wall changes are most consistent with inflammatory bowel disease with some potential for emerging lymphoma. However, given the chronicity of these changes, neoplasia is considered less likely at this time.
- Gall bladder wall changes could be consistent with cholecystitis, hypoalbuminemia, increased hydrostatic pressure (i.e., due to right-sided congestive heart failure), anaphylaxis, immune-mediated hemolytic anemia, other. Correlation with the patient's blood work findings is recommended.
- Nonspecific diffuse hepatopathy. Differentials include vacuolar hepatopathy, regenerative nodular hyperplasia, inflammatory disease (infiltrative neoplasia (less likely)), hepatotoxicosis (i.e., copper), other hepatopathy. Again, Correlation with the patient's liver values is recommended.

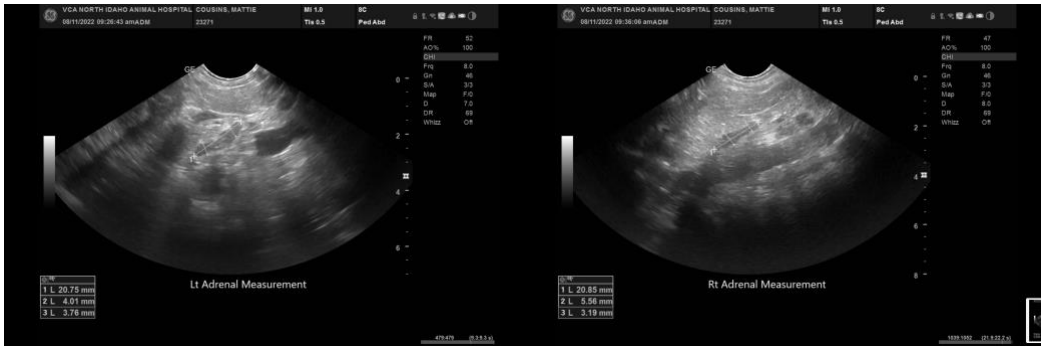
Secondary Findings

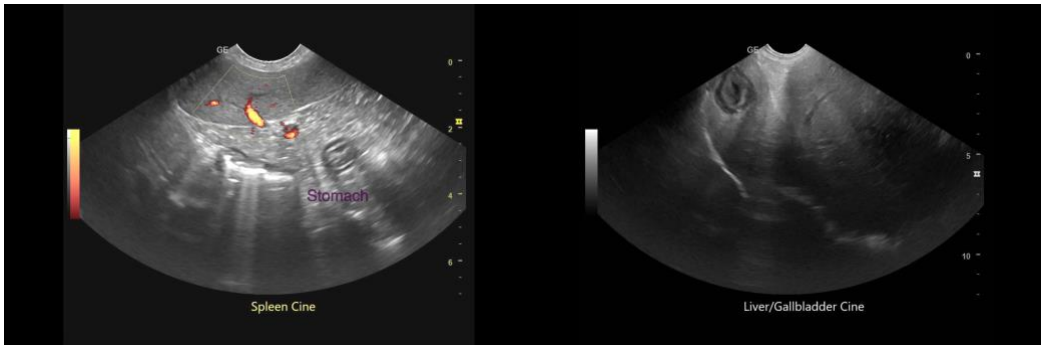
- The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.
- The small hyperechoic right adrenal nodule trends toward the benign (i.e., area of hyperplasia) with low potential for emerging neoplasia.
- The echogenic nodule in the left mid-abdomen may represent accessory spleen, lymph node, other. Its clinical significance is unknown.

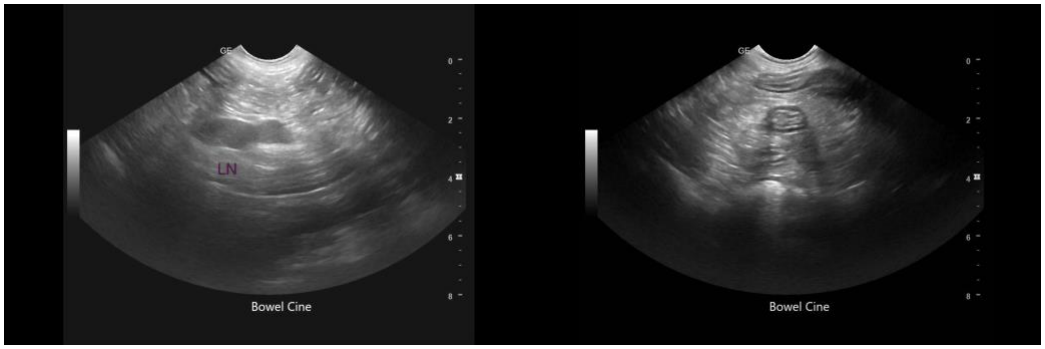
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Further diagnostic and treatment recommendations are going to depend on the bloodwork results. While awaiting results, consider the following:

1. Three-view thoracic radiographs to assess cardiopulmonary status
2. Malabsorption panel, including serum cobalamin and folate, TLI and PLI, is recommended.
3. A fecal evaluation for ova and Giardia is recommended (if not already performed).
4. Prophylactic deworming with Fenbendazole (if not already performed)
5. Ultimately gastrointestinal biopsies may be necessary to get a definitive diagnosis.
6. Further evaluation of the gall bladder and liver may be warranted, particularly if the liver enzymes are elevated.







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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com