SonoPath
Clinical Sonography & Telecytology
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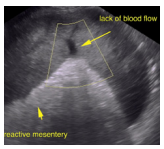
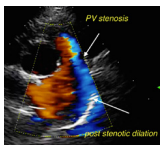
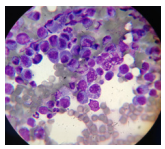
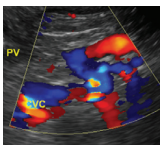




SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Toot Rieger

SPECIES

Canine

BREED

Pomeranian

SEX

Spayed female

AGE

14 years

WEIGHT

3.7 kg

INTERPRETED BY

Dr Brittany Sinclair, BVSc(hons), DACVECC

IMAGING PERFORMED BY

Hayley Heindel, CVT

HOSPITAL NAME

Mason Dixon Animal Emergency Hospital

REFERRING VET

Dr. Parr

INVOICE

42369

DATE

12/28/22

PRESENTING CLINICAL SIGNS

History: hematochezia x 2 days, abdominal pain x days
Abnormal PE/Chem/CBC/UA Results: ALB 4.4 ALT 193 ALP 333 GGT 18 cPLi WNL

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder lumen volume is small and walls are diffusely thickened most consistent with pseudohypertrophy

The kidneys have a smooth capsule and with hazing of corticomedullary definition to the point of inability to determine cortical/medullary ratio. No evidence of pelvic dilation was present. Left kidney contains spherical anechoic fluid accumulation consistent with cortical cyst and left and right kidneys contain pinpoint areas of cortical mineralization. The left kidney measured 3.58 cm and the right kidney measured 3.42 cm.

Adrenal Glands

Both adrenal glands were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 1.3 cm in length and 0.46 cm at the cranial pole and 0.44 cm at the caudal pole. The right adrenal gland measured 1.3 cm in length, 0.74 cm at the cranial pole and 0.39 cm at the caudal pole.

Spleen

The spleen was normal in size with a slightly mottled or coarse parenchyma with pinpoint areas of mineralization and smooth capsule. No significant disruption of architecture noted. Splenic vasculature is normal with no signs of congestion or thrombosis.

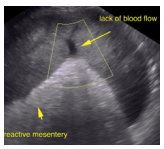
Liver

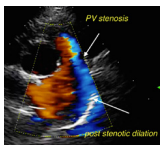
Liver is subjectively enlarged with slightly rounded borders and diffusely hyperechoic largely homogenous parenchyma with small areas of focal mineralization which likely represent non-obstructive choleliths.

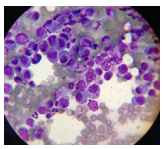
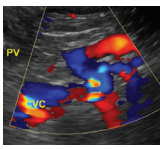
The gall bladder is moderately distended with anechoic fluid, with hyperechoic non-shadowing gravity dependent debris present. There is no surrounding free fluid or signs of active inflammation. The proximal cystic duct is slightly dilated but tapers normally

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed. The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering





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maintaining the typical 1:3 muscularis:mucosa layer ratio. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed. The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

Left and right limbs of pancreas are prominent and hypoechoic with slightly hyperechoic surrounding parenchyma.

Lymph Nodes

No clinically significant lymphadenopathy or abnormalities noted.

Free Abdomen

No masses or free fluid were noted.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

1. Hepatomegaly with parenchymal changes and non-obstructive intra-hepatic choleliths
2. Pancreatitis
3. Splenic parenchymal changes with smooth capsule
4. Thickened urinary bladder wall - suspect pseudohypertrophy

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Hepatic parenchymal changes are diffuse and in the face of elevated liver enzymes liver aspirate is recommended to further characterize parenchymal change. Diffuse round cell infiltration, acute hepatitis (toxin, leptospirosis, viral, autoimmune, other) are possibilities. Areas of mineralization are likely associated with biliary tracts, are not causing a biliary obstruction and are likely an incidental finding, though they may be contributing to ALKP elevation and can act as a nidus of infection.

Pancreatic changes are mild but consistent with acute pancreatitis despite normal cPLi especially given patient discomfort in right abdomen. This may be reactive secondary to primary liver disease.

Treatment for pancreatitis and acute hepatitis is supportive and involves fluid support, GI support (anti-nausea, appetite stimulant), analgesia and enteral nutrition. While awaiting liver aspirate, treatment for hepatitis with addition of antibiotics therapy (good empiric options include amoxicillin, enrofloxacin, metronidazole) and liver supportive medications (denamarin, ursodiol) should be considered.

Splenic changes are a common benign age related change, but infiltrative disease (lymphoma, MCT, other) cannot be definitively ruled out. Aspirate if any weight loss is an issue or for baseline cytological assessment should be considered.

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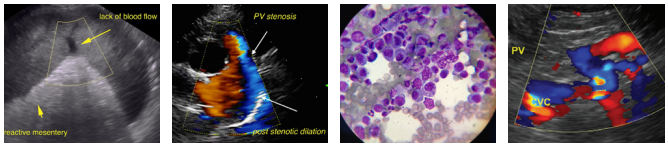

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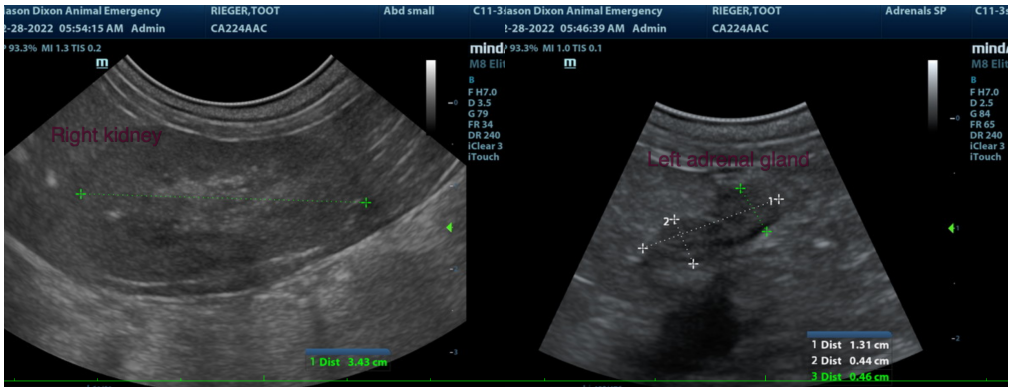
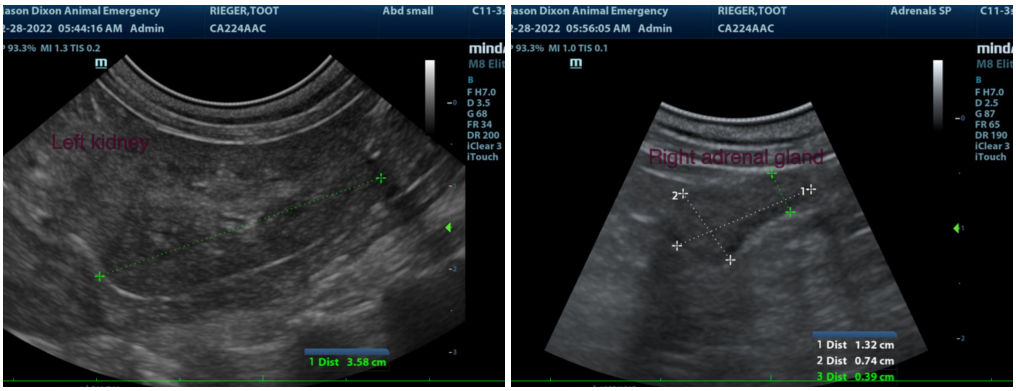
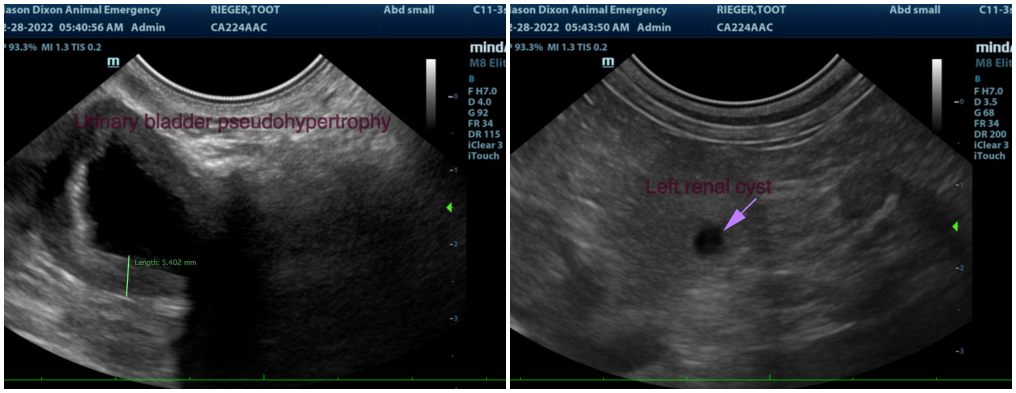
Urinary bladder wall thickening is likely pseudohypertrophy secondary to low volume of urine and lack of luminal distension, however, true mural thickening cannot be definitively ruled out. Re-examination when urinary bladder lumen volume is increased with time and/or fluid therapy should be considered if clinical suspicion for urinary bladder disease is high.







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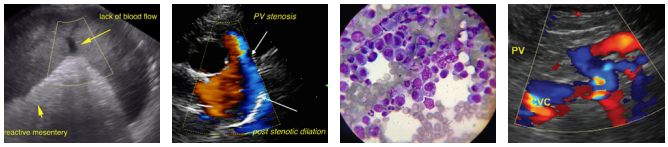

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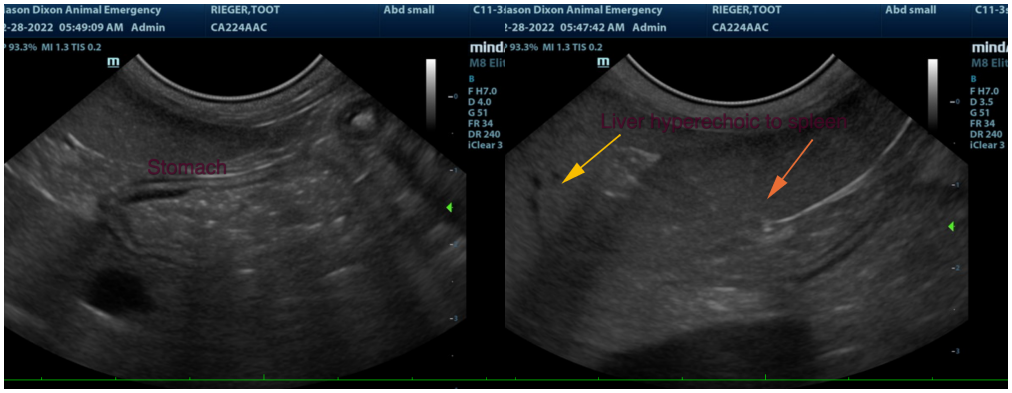

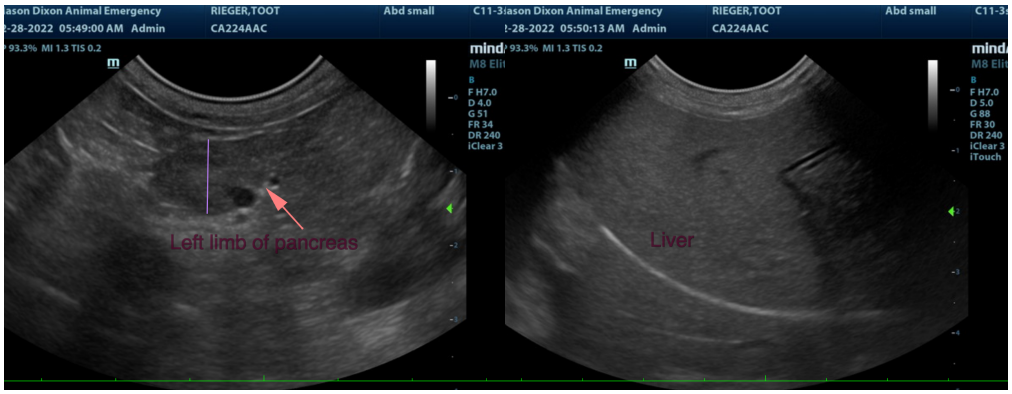

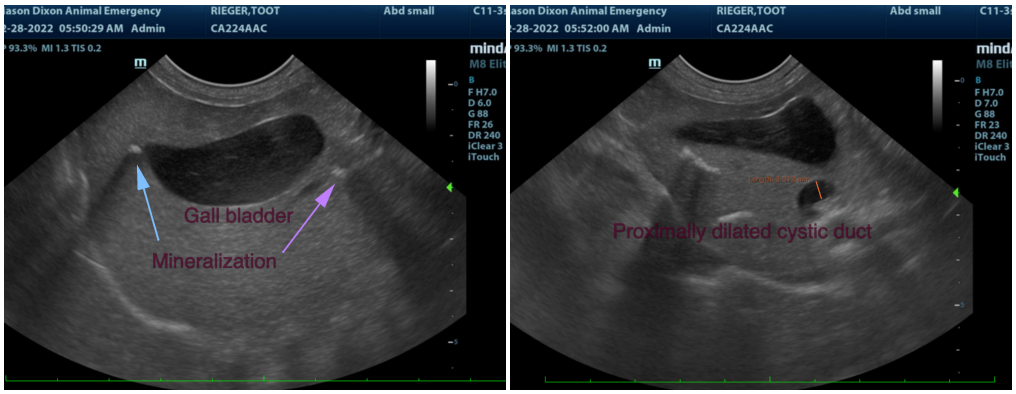

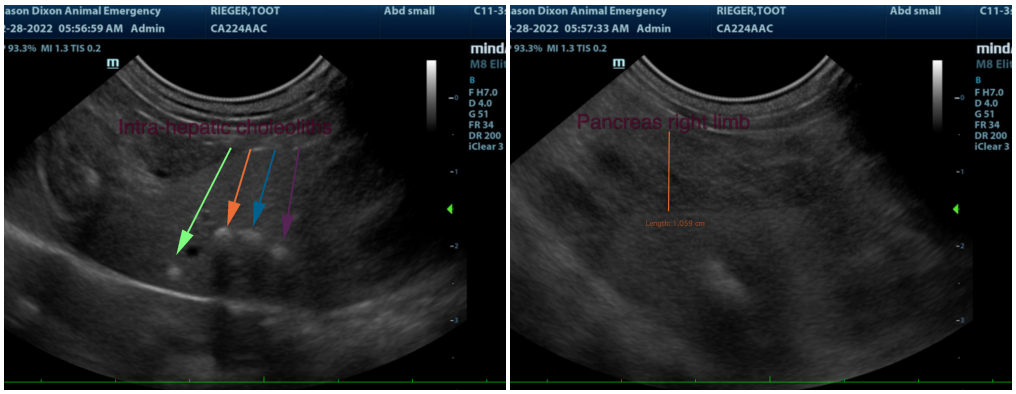

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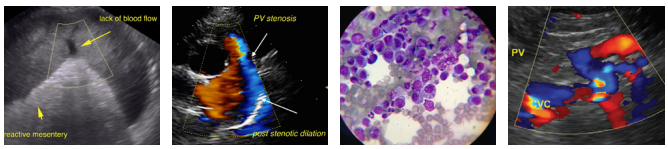

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Dr Brittany Sinclair, BVSc(hons), DACVECC
info@SonoPath.com