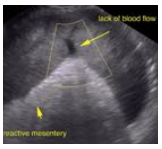
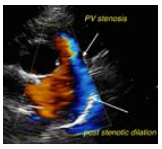
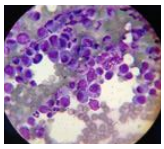
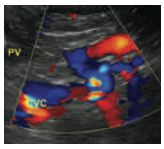
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Roxy Schreiber

SPECIES

Canine

BREED

Mix

SEX

Spayed Female

AGE

13 years

WEIGHT

20 lbs

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Dr. Scott

HOSPITAL NAME

HoHoKus VH

REFERRING VET

Dr. Gannon

INVOICE

91573

DATE

8/31/21

PRESENTING CLINICAL SIGNS

History: ADR 2 days of lethargy, decreased app, trembling, vomit here and there did bw and put on metro and Clavamox and pet is doing better- a bit peppier and eating now
Abnormal PE/Chem/CBC/UA Results: ALT 2014, Ast 200, alp 808, GGT 48, t bili 0.9, cholesterol 421

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney has a normal shape and size (4.0 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Non-obstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.3 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Non-obstructive nephroliths were noted along with a 0.3 cm cortical cyst. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

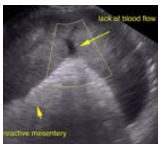
Adrenal Glands

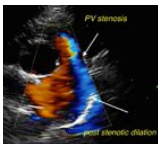
The left adrenal gland is large in size with the caudal pole measuring 2.6 x 2.7 cm. It is observed in its normal position cranial to the left renal artery, yet irregular in appearance with a hyperechoic foci measuring 0.83 cm. There is no clear cranial or caudal pole visualized. I suspect that the mass effect is the caudal pole due to location. There is no obvious evidence of vascular invasion or surrounding inflammation, but the mass is impinging upon local vasculature.

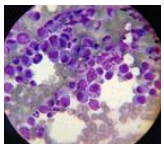
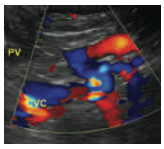
The right adrenal gland is enlarged in size measuring 2.8 x 3.0 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is irregular and rounded in appearance with no visualized evidence of a distinct cranial or caudal pole. It is slightly mottled and there is no obvious evidence of direct vascular invasion, but it appears to impinge on local vasculature.

Spleen

The spleen is subjectively normal in size. The spleen echotexture is heterogenous and mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There are two ill-defined, small, hypoechoic nodules visualized measuring 0.9 cm and 0.74 cm.





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

PATIENT

Roxy Schreiber

SPECIES

Canine

BREED

Mix

SEX

Spayed Female

AGE

13 years

WEIGHT

20 lbs

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Dr. Scott

HOSPITAL NAME

HoHoKus VH

REFERRING VET

Dr. Gannon

INVOICE

91573

DATE

8/31/21

Liver

The liver is subjectively large in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed. The gallbladder lumen is moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm 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 maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal and the jejunum measured as normal (0.34 cm). 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

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

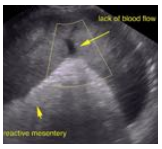
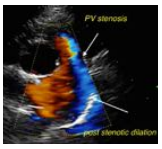
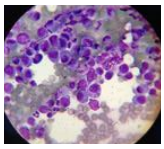
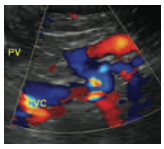
Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Severe, bilateral adrenal enlargement. The findings can be consistent with bilateral adrenal masses or pituitary dependent hyperadrenocorticism.
- Large heterogenous liver. The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

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

PATIENT

Roxy Schreiber

SPECIES

Canine

BREED

Mix

SEX

Spayed Female

AGE

13 years

WEIGHT

20 lbs

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Dr. Scott

HOSPITAL NAME

HoHoKus VH

REFERRING VET

Dr. Gannon

INVOICE

91573

DATE

8/31/21

- Large gallbladder sludge. The gallbladder sludge distends the gallbladder and in some areas it is mineralized and starting to organize bordering on consistent with an early mucocele. In some areas it is mineralized and starting to organize bordering on consistent with an early mucocele.
- Indistinct hypoechoic nodules in the spleen. There are several, non-cavitated, hypoechoic splenic nodules visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- The clinical and biochemical signs reported are most consistent with a primary hepatopathy due to the primary ALT elevation. The gallbladder has a large amount of sludge within it, but there is no surrounding inflammation and most commonly you would see a primary ALP elevation (but not always). Consider toxic causes, Leptospirosis, acute liver injury (due to drugs), toxins, etc.

SECONDARY FINDINGS:

- Decreased corticomedullary distinction in both kidneys. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.
- Two ill-defined nodules were visualized in the spleen. These are small and do not deform the capsule. Recommend fine needle aspirate.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

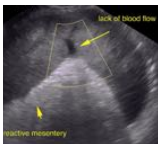
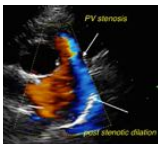
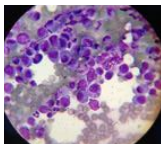
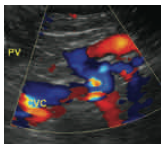
I recommend to continue supportive care, testing for Leptospirosis, SAMe, and Ursodiol. I recommend close monitoring of the gallbladder. If fever, pain, etc. develop it may need to be reevaluated for removal.

Additionally both adrenal glands are very abnormal and enlarged. This is typically the pattern for pituitary dependent hyperadrenocorticism and this is possible, but these adrenal glands are atypically large and may be consistent with bilateral masses. Options moving forward include:

- Blood pressure evaluation.
- Adrenal function testing and either proceeding with medical management (possibly Lysodren in this patient?) or surgery for bilateral adrenalectomy (I recommend a board certified surgeon with access to critical care).
- Consider an abdominal CT scan prior to considering surgery to evaluate for vascular invasion and to confirm the current diagnosis.
- You can consider imaging of the brain as evaluation of pituitary gland could be helpful in obtaining a diagnosis.

Consider holding on adrenal function testing until this patient is feeling better. I recommend a liver function test for further evaluation and continue to monitor the adrenal glands with ultrasound. If medical management is opted Lysodren can shrink the adrenal glands whereas Trilostane can sometimes make them larger, which could be undesirable in this situation.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Roxy Schreiber

SPECIES

Canine

BREED

Mix

SEX

Spayed Female

AGE

13 years

WEIGHT

20 lbs

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Dr. Scott

HOSPITAL NAME

HoHoKus VH

REFERRING VET

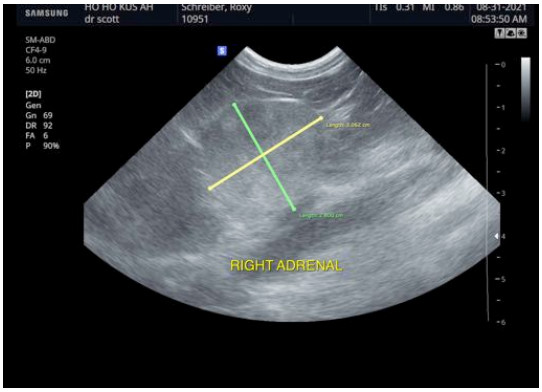
Dr. Gannon

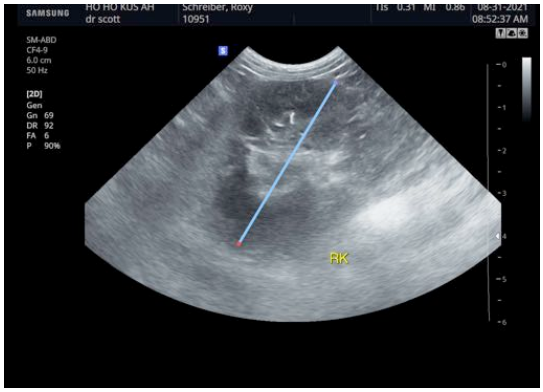
INVOICE

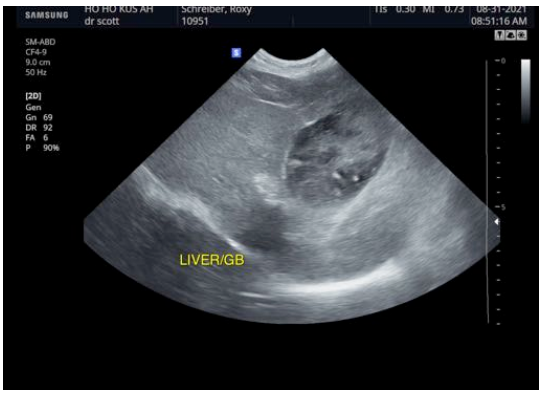
91573

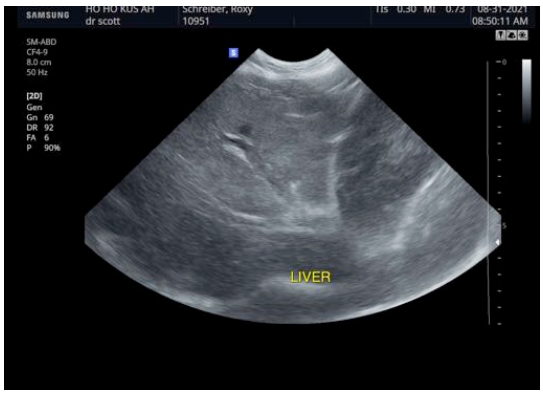
DATE

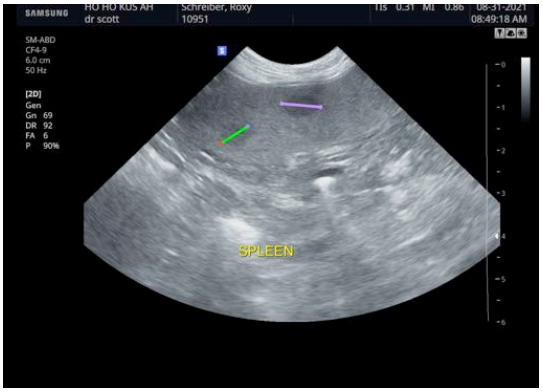
8/31/21











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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
kathleen.sennello@sonopath.com