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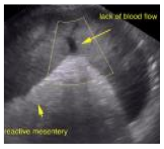
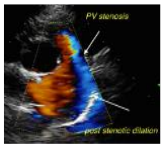
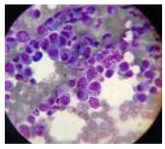
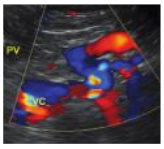

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1-800-838-4268 info@sonopath.com

PATIENT

Ham Bone Nelson

SPECIES

Canine

BREED

Lab Mix

SEX

Neutered Male

AGE

10 Years

WEIGHT

70 Lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Christina Sitton

HOSPITAL NAME

Sherwood Family PC

REFERRING VET

Christina Sitton

INVOICE

13245

DATE

12/29/21

PRESENTING CLINICAL SIGNS

History: vomiting 4 days hx of pancreatitis TPLO sx 12/9/2021 on carprofen currently BW on 10/1/2021 wnl

Abnormal PE/Chem/CBC/UA Results: icteric mm/sclera BW today 12/29: Potassium 3.7 mmol/L 4.0 - 5.4 | : : LOW ALT 757 U/L 18 - 121 : : | HIGH AST 120 U/L 16 - 55 : : | HIGH ALKP 315 U/L 5 - 160 : : | HIGH GGT 8 U/L 0 - 13 : | : TBIL 5.9 mg/dL 0.0 - 0.3 : : | HIGH IBIL 2.1 mg/dL 0.0 - 0.2 : : | HIGH DBIL 3.8 mg/dL 0.0 - 0.1 : : | HIGH CBC/cpl: pending rest of chem wnl UA: USG 1.038, 3+ bilirubin

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 2 cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The prostate is normal in size (0.72 cm) and shape for this neutered male dog. The parenchyma is homogenous, and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (6.5 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.5 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.53 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

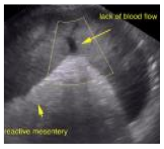
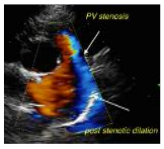
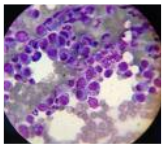
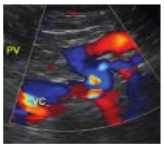
The right adrenal gland is normal in size measuring 0.74 cm at the caudal. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively large 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 2 irregular hypoechoic mass lesions/nodules on the spleen, 1 smaller hypoechoic lesion is 1.59 cm, the larger expansile mass effect is measuring 4 cm x 3.1 cm.

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.

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The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach is moderately dilated with fluid and irregular shadowing material most consistent with moderate ingesta and gas. 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 layering 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 (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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/region of 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

- 2 Irregular hypoechoic splenic masses. There are two non-cavitated, hypoechoic splenic masses visualized which deviate the splenic capsule. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis. There is concern for a neoplastic process here.

- Heterogeneous 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.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There are 2 mass lesions on the spleen. These could be benign or cancerous lesions. I would likely recommend splenectomy for both therapeutic and diagnostic purposes, but it would be possible to fine needle aspirate at least one of the lesions if that was desired.

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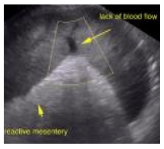
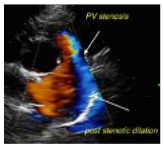
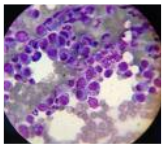
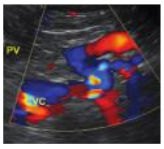

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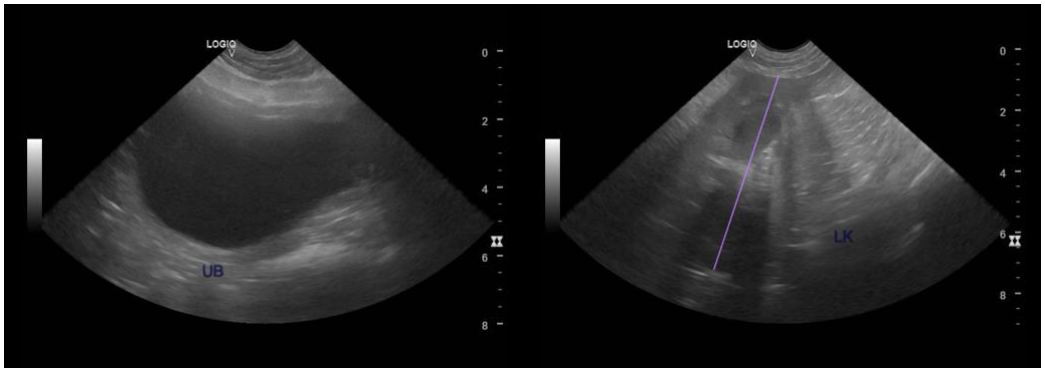
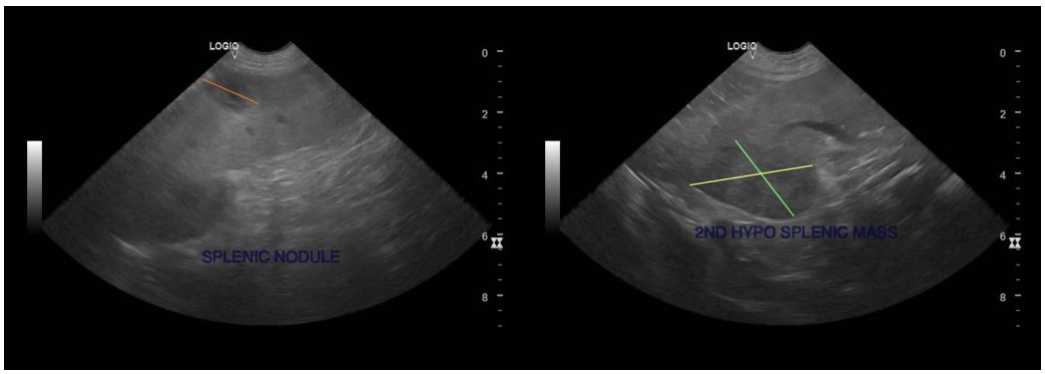
The liver is heterogeneous. No focal lesions are observed within the parenchyma. I suspected the liver value changes are not associated with the nodules in the spleen. It is difficult to say that definitively, but I suspect they are two separate problems. Additionally, the biliary tract appears relatively normal. The ultrasonographic changes in the liver were relatively mild. Unfortunately, the sonographic changes do not always reflect the severity or cause of the hepatopathy. The scan today supports a primary hepatopathy as no severe biliary changes were observed.

- Consider close evaluation of history for possible toxic changes examine medications, diet, dietary indiscretion etc. (The Carprofen he is currently taking could cause this type of issue.)
- Consider PCR on urine/serum for leptospirosis (if not on antibiotics)/serology if recent antibiotic history.
- Consider Fine needle aspirate if round cell neoplasia is on your differentia list (25 g needle, normal coags)
- If no response to supportive care (denamarin, fluids, antibiotics, +/- ursodiol etc.) Consider liver biopsy with samples obtained for histopathology, culture, and copper levels.

If there is no improvement in liver values with supportive care and cessation of the rimadyl, a liver biopsy may be necessary, provided coagulation parameters are normal. I recommend splenectomy and liver biopsy at the same time. Recommend three-view thoracic radiographs.





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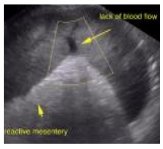
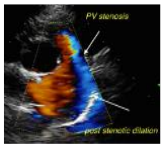
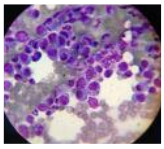
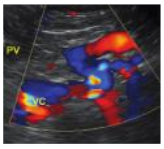

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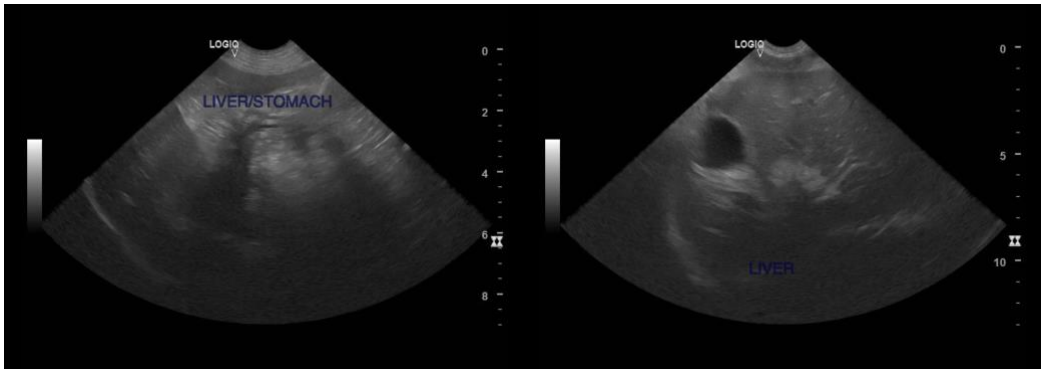

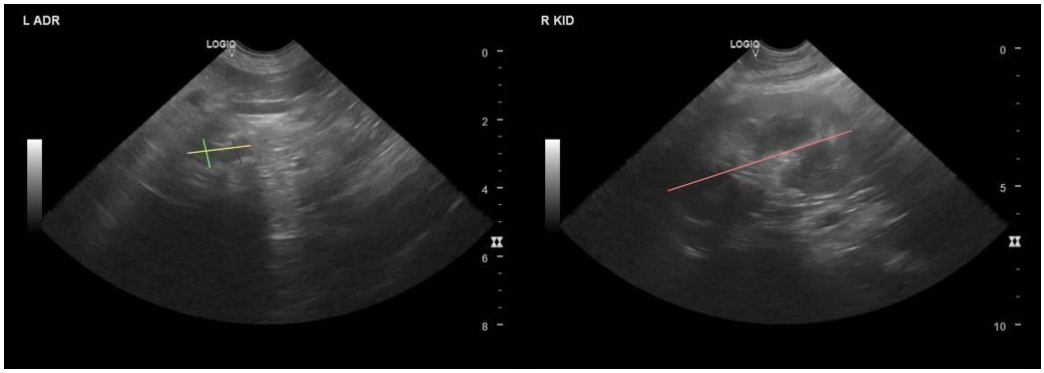

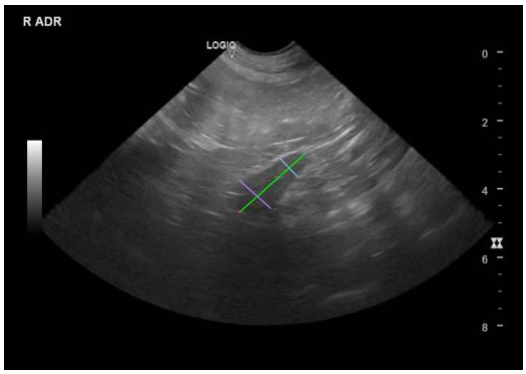

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
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