



PATIENT

Gracie Christ

SPECIES

Canine

BREED

Labrador Retr

SEX

Female Spayed

AGE

12 years

WEIGHT

32.8 kg

INTERPRETED BY

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

**IMAGING
PERFORMED BY**

Erin Wicks

HOSPITAL NAME

Shores VEC

REFERRING VET

Dr Welti

INVOICE

14011

DATE

8.10.23

PRESENTING CLINICAL SIGNS

History: Presented at our hospital for labored breathing. O said she's been restless at night, pacing for about 3 weeks. O took to rDVM last week. Increased liver values, decreased platelets. Patient was started on Rimadyl and has an appt next week to recheck bloodwork. O thinks she is getting worse. She is seeing black stools. She didn't want to eat this am. Drooling on and off. Previous Health Concerns: arthritis Current Medications: Rimadyl

Abnormal PE/Chem/CBC/UA Results: Abdominal: palpates full in mid abdomen Rads: decreased detail in ventral mid abdomen Bloodwork: 08/10/23 HCT 31.9; MCV 55.9; TCO2 14.6; PH 7.469; HCT 34 08/2/23: HGB 13.3; MCV 58; MCH 19.1; PLT 96; ALB 2.3; ALKP 181; ALT 321; AST 121; DBIL 0.2; Tbil 0.6; GLOB 4.1; IBIL 0.4;

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended. The wall is normal in thickness. The mucosal surface at the apex is slightly irregular. A small amount of gravity-dependent mineralized sand is observed within the lumen. The region of the trigone is normal.

The left kidney is normal in size (7.43 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (6.54 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size (0.38 cm at cranial pole) (0.44 cm at caudal pole) (2.48 cm in length) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

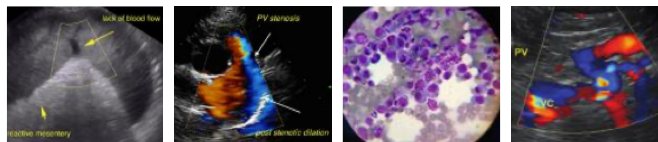
The right adrenal gland is in normal size (0.78 cm at cranial pole) (0.61 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is overall normal in size (1.53 cm in width at the level of the hilus). The margins at the cranial pole are slightly swollen/irregular. The parenchyma is homogenous. Splenic vasculature appears normal with no evidence of thrombosis.

Liver

The liver is subjectively normal in size with irregular peripheral contours. The parenchyma is diffusely mottled and nodular in appearance. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.



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The gall bladder is distended. The wall is mildly thickened (up to 0.25 cm) and hypoechoic with a “double-walled” effect. A moderate amount of mostly gravity-dependent, echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is mildly distended with ingesta. The gastric wall in the region of the fundus is normal to moderately thickened (up to 0.67 cm) with retention of the normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas

The right limb is enlarged with irregular peripheral contours. The parenchyma is hypoechoic relative to surrounding omental fat and mildly heterogenous in appearance. The pancreatic duct is not overtly dilated.

Free Abdomen

The mesentery in the cranial- to midabdomen is hyperechoic. A small amount of free fluid is present. A 1.21 x 0.57 cm echogenic lymph node is observed in the left cranial abdomen.

Other

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The hepatic changes are concerning for a chronic hepatopathy. Differentials include chronic hepatitis, hepatotoxicosis (i.e., copper), fibrosis, neoplasia (less likely), other hepatopathy. The changes are concerning for end-stated liver disease.
- The gallbladder wall changes could be consistent with cholecystitis, increased hydrostatic pressure, low oncotic pressure, anaphylaxis (less likely), immune-mediated hemolytic anemia (less likely), other.
- The pancreatic changes are consistent with mild to moderate pancreatitis.
- The gastric wall thickening is most consistent with an inflammatory process with a lower possibility of emerging neoplasia. A distinct gastric ulcer isn't seen. However, small ulcers or erosions cannot be excluded.
- Cranial- to midabdominal peritonitis, likely secondary to hepatic, gastric and/or pancreatic pathology.

Secondary Findings

- Minor bilateral chronic renal changes



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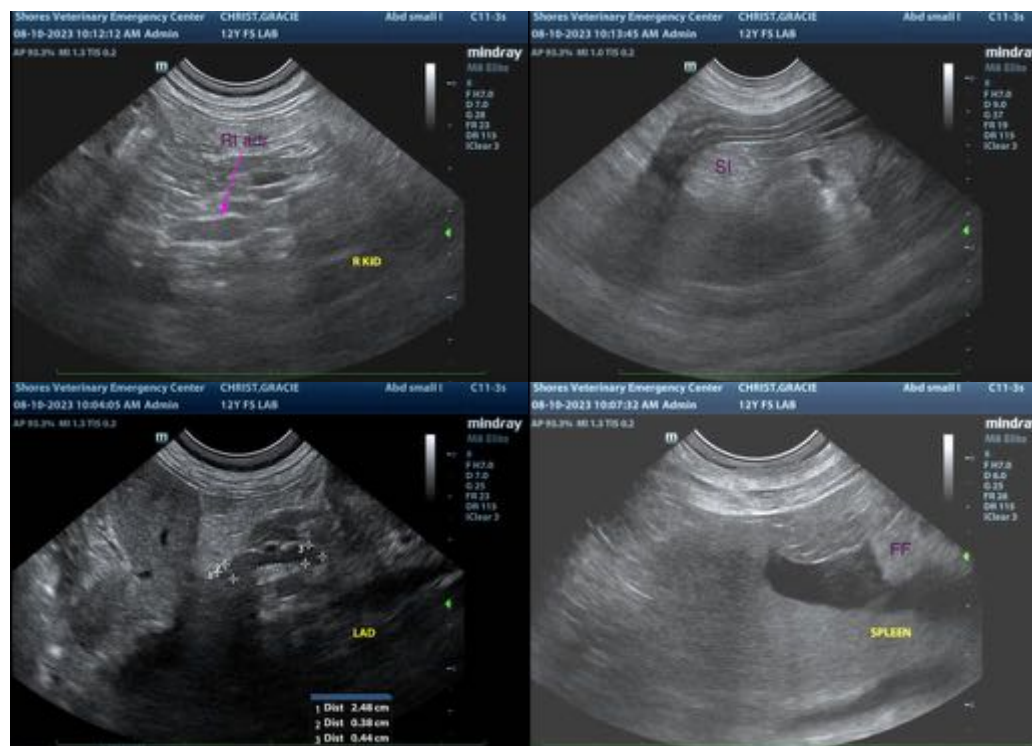
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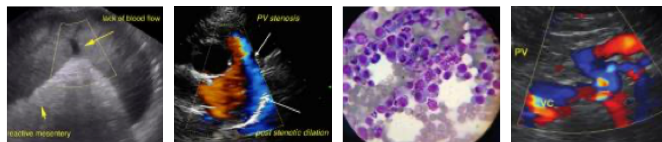
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- The splenic changes at the cranial pole may be a normal variant for this patient or may represent a benign process (i.e., lymphoid hyperplasia or similar). Infiltrative neoplasia is possible but considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Discontinuation of Rimadyl along with empirical treatment for gastric ulceration (i.e., omeprazole, sucralfate, and a bland diet) is recommended.
- Pre-and postprandial serum bile acids are recommended to assess hepatic function.
- Consider laparoscopic or surgical liver biopsies with aerobic and anaerobic bile cultures, as well as hepatic copper quantitation (if clotting status is appropriate). It is possible that biopsies may indicate only end-stage liver, and not reveal the inciting cause for the pathology. Three-view thoracic radiographs and clotting times should be performed prior to anesthesia.
- Leptospirosis testing can be considered if clinical suspicion for disease is high. However, Leptospirosis is unlikely to cause the chronic hepatic changes seen in this patient.
- While awaiting test results, symptomatic care for pancreatitis/cholecystitis is recommended.





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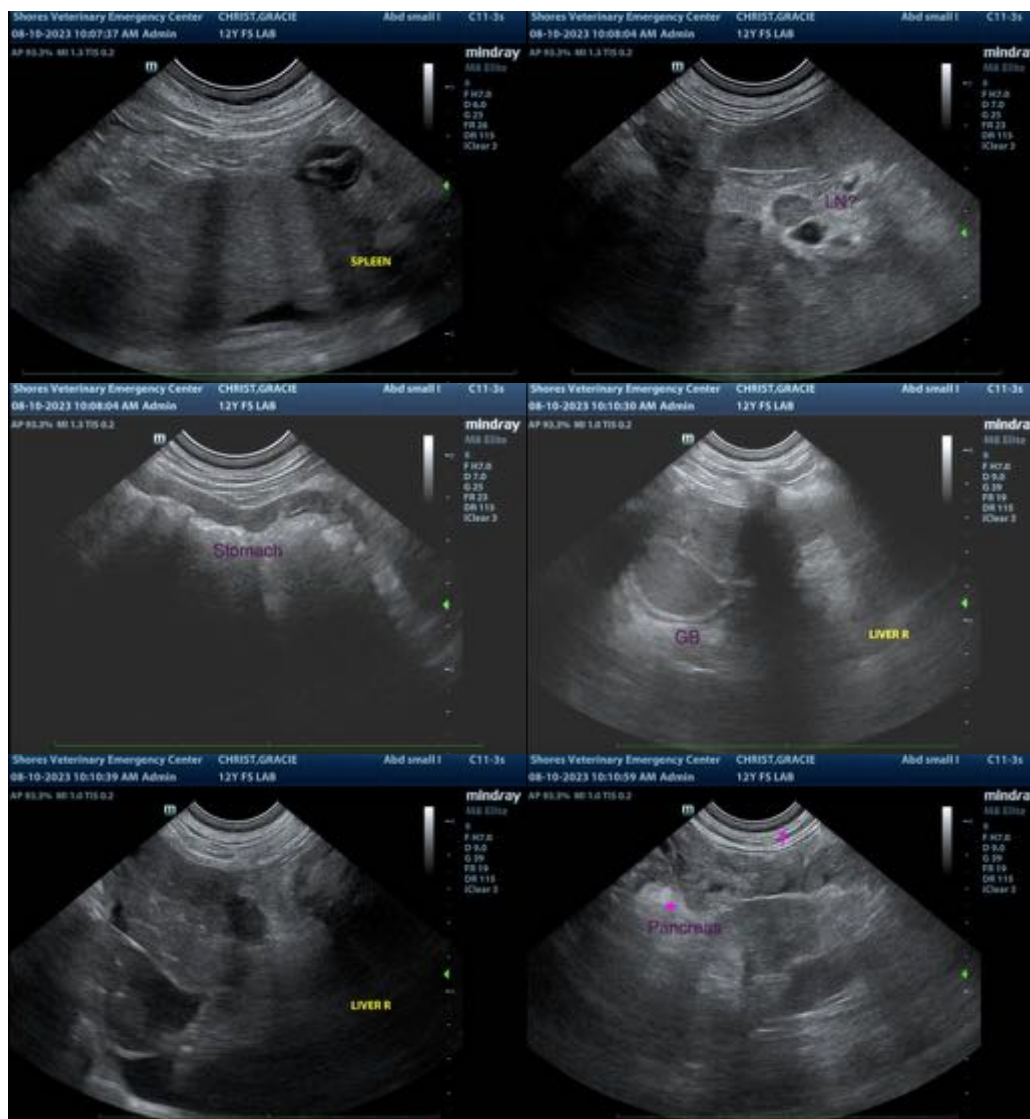
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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