



PATIENT

Gigi Wylee

SPECIES

Canine

BREED

Malamute

SEX

Female

AGE

11 Yrs.

WEIGHT

45 kg

INTERPRETED BY

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

**IMAGING
PERFORMED BY**

Dr. Callihan

HOSPITAL NAME

Pacific Crest Mobile

REFERRING VET

Dr. MacInnes

INVOICE

12093

DATE

9/15/21

PRESENTING CLINICAL SIGNS

History: Intact female presents for abd ultrasound as part of workup for elev ALT noted on routine bloodwork) in July 2021, ~400 U/L. Recheck today 650 U/L. She is clinically well/normal, possibly some subtle weight loss. She takes Carprofen, Denamarin, levothyroxine, and Simparica. She is current on preventive care. Her last heat cycle ended a few weeks ago.
Abnormal PE/Chem/CBC/UA Results: Healthy appearing geriatric intact female, nothing remarkable noted on PE today other than ongoing stiffness in hind limbs.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. 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 (7.85 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. A cortical infarct is observed at the lateral aspect. There is no evidence of pyelectasia, nephroliths or hydroureter.

The right kidney is subjectively normal size with a normal shape and architecture with 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 size (0.57 cm at cranial pole) (0.64 cm at caudal pole) (2.79 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.

What is thought to be the caudal pole of the right adrenal gland is normal in size (0.80 cm in width) with a normal shape, glandular echogenicity and detail. Surrounding vasculature is unremarkable.

Spleen

The spleen is normal in size (2.88 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 subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and is homogeneous in appearance with a coarse echotexture. No focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gallbladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal.



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Gastrointestinal

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The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly distended with ingesta. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

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Pancreas

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The pancreas is normal in size with normal peripheral contours. The pancreatic duct is normal. The base and limbs of the pancreas are isoechoic to surrounding omental fat. No focal lesions are observed. There is no evidence of peripancreatic inflammation or effusion.

SEX

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Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

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Other

The left ovary is subjectively normal in size (2.43 cm in length) with a normal shape. 2 cystic follicles are observed within the parenchyma. No obvious pathology is seen.

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ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- An obvious cause for the elevated liver enzymes is not identified in the study. However, a microscopic hepatopathy (i.e., bacterial cholangiohepatitis, Leptospirosis, chronic active hepatitis, copper-associated hepatotoxicity, infiltrative neoplasia (less likely)) are possibilities.

Secondary Findings:

- Bilateral age-related renal changes with a left cortical infarct.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Cytologic evaluation of the liver should be considered in this patient if clotting status is appropriate. A fine needle aspirate using a 25-gauge needle is recommended. If cytologic evaluation is inconclusive, consider a surgical liver biopsy with aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for copper quantitation.
- If a conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis (amoxicillin-clavulanic acid, Denamarin Advanced). If no improvement in the liver values is seen within 7-10 days of initiating therapy, antibiotics should be discontinued and hepatic tissue sampling reconsidered. If liver values improve, continue therapy for at least 4-6 weeks and 1 week beyond normalization of the liver values.
- Three-view thoracic radiographs are recommended to assess cardiopulmonary status.
- Leptospirosis testing (i.e., blood and urine PCR, serology) can also be considered. However,

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given the chronicity of the liver enzyme elevations, this differential is considered less likely.

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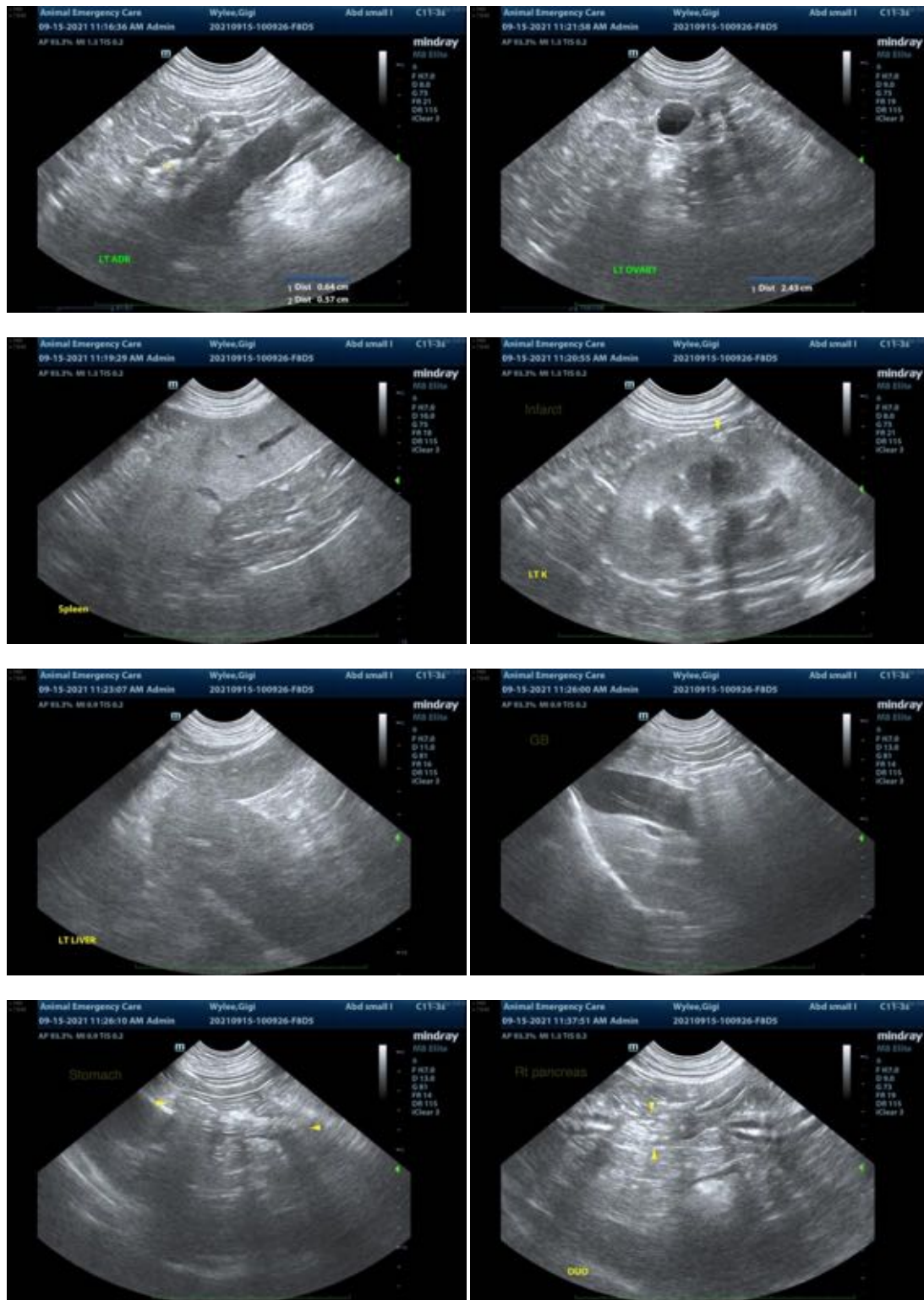
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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