



PATIENT

Angus Hernandez

SPECIES

Canine

BREED

West Highland White
terrier

SEX

Male, neutered

AGE

7/25/2015

WEIGHT

24 lbs.

INTERPRETED BY

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

**IMAGING
PERFORMED BY**

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

HOSPITAL NAME

Meadowlawn Conway

REFERRING VET

Dr. Heim

INVOICE

13389

DATE

1/11/24

PRESENTING CLINICAL SIGNS

The patient presented with slowly rising liver values. Bloodwork in November of 2025 revealed an ALT of 309, ALP of 617. Bloodwork 1 year previous revealed an ALT of 195 and an ALP of 991. In November of 2023, ALT 162, ALP 641. USG 1.025, no proteinuria, inactive sediment, 4DX negative, normal T4.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface in the region of the apex is slightly irregular. The bladder is mildly to moderately distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (0.88 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (4.83 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. Pinpoint hyperechoic foci are observed within the cortex. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal in size (5.04 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. Pinpoint hyperechoic foci are observed within the cortex. A few small mineralized foci are visualized. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size at the cranial pole and mildly enlarged at the caudal pole (0.49 cm at cranial pole) (0.73 cm at caudal pole). A 0.56 x 0.32 cm ill-defined hypoechoic to heterogeneous nodule is observed at the caudal pole. The remaining glandular echogenicity and detail are unremarkable. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is upper limits of normal in size (0.82 cm at cranial pole) (0.75 cm at caudal pole) with a normal shape. The glandular echogenicity and detail are unremarkable. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.17 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A few irregular myelolipomas are observed in the region of the hilus. Splenic vasculature is normal.

Liver

The liver is subjectively prominent in size with irregular peripheral contours. The parenchyma is isoechoic relative to the spleen and heterogeneous bordering on nodular in appearance. Vascular and biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1:1.

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.

Gastrointestinal



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The gastric lumen is mildly gas distended. 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 is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The ileocecolic junction and colonic wall are normal. There is no obvious evidence of an obstructive pattern.

Pancreas

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Lymph nodes

A 1.25 x 0.85 cm periportal lymph node is visualized. Surrounding mesentery is slightly hyperechoic.

Free Abdomen

Trace free fluid is observed.

Other

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The hepatic parenchymal changes could be consistent with infiltrative neoplasia (i.e., round cell tumor), fibrosis, diffuse inflammatory disease (i.e., chronic hepatitis, cholangiohepatitis), hepatotoxicosis (i.e., copper), regenerative nodular hyperplasia, vacuolar hepatopathy and/or other hepatopathy.
- Gallbladder debris, non-mucocele
- The prominent periportal lymph node could be consistent with reactive change or infiltrative neoplasia. At this time, a benign process is favored.

Secondary Findings:

- Minor pancreatic parenchymal remodeling in the right limb
- Mild bilateral nonspecific, age-related renal changes with dystrophic mineralization
- Mild bilateral adrenomegaly with a small ill-defined left adrenal nodule at the caudal pole.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

1. In order to get a definitive diagnosis, hepatic tissue sampling (i.e., aspirates or biopsies (i.e., laparoscopic or surgical)) would be necessary (assuming normal clotting status). Biopsies are more likely to yield a definitive diagnosis in cases of chronic hepatitis, hepatotoxicosis (i.e., copper) and fibrosis. If pursued, three-view thoracic radiographs should be performed prior to anesthesia.
2. Leptospirosis testing (i.e., blood and urine PCR, serology) can also be considered. However, the hepatic changes appear chronic. Therefore, Leptospirosis testing may be of low yield.



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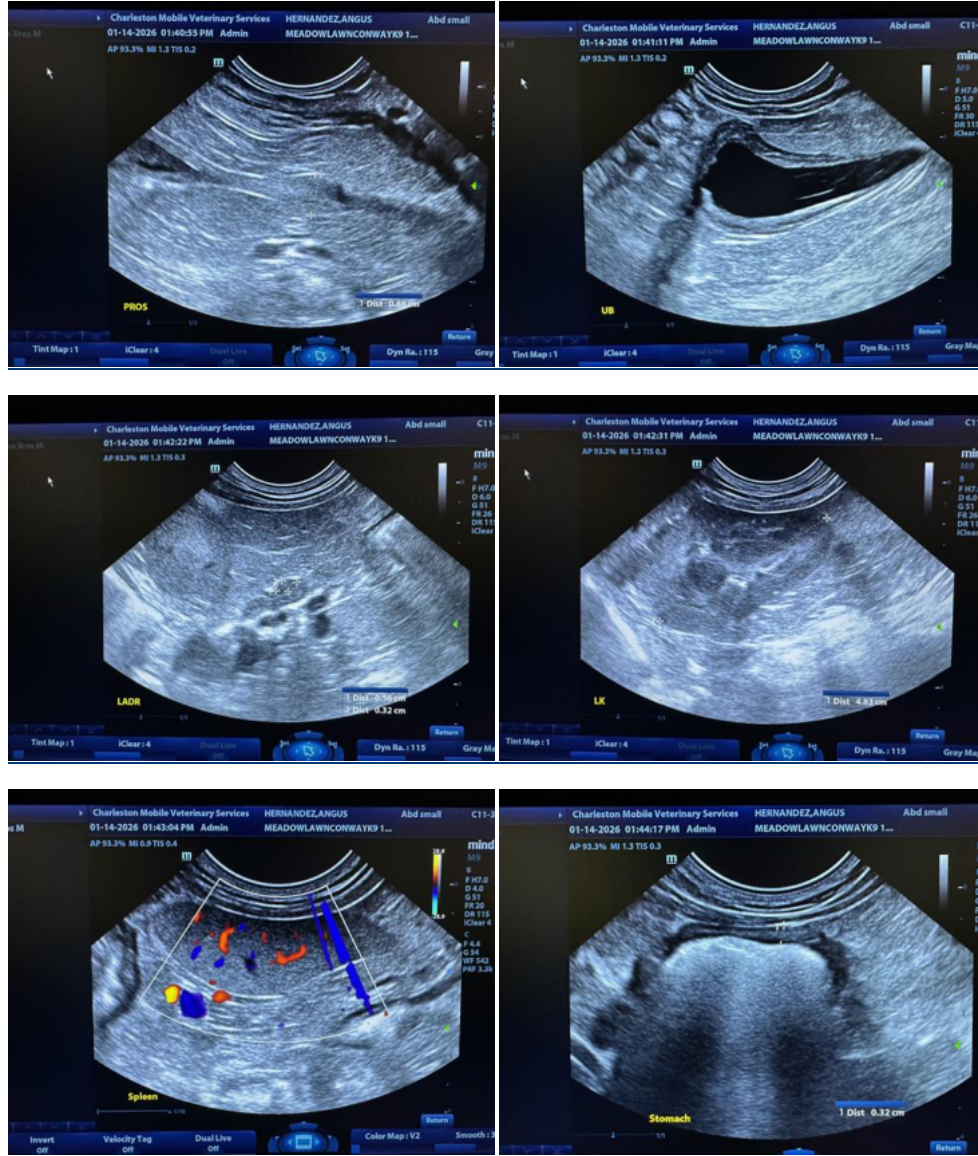
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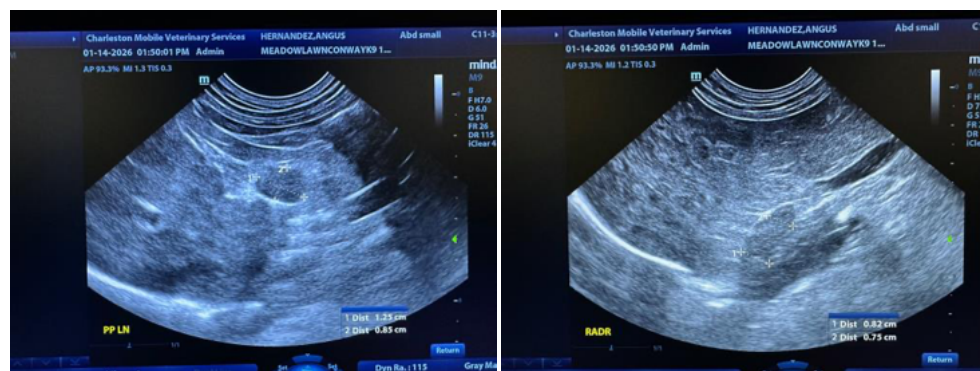
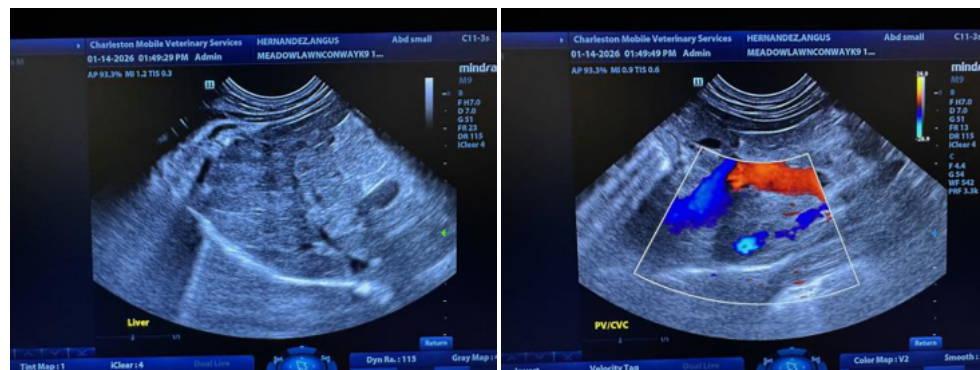
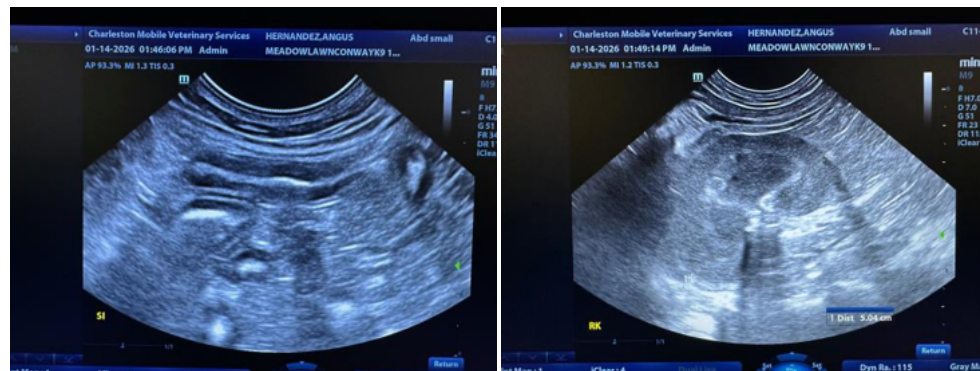
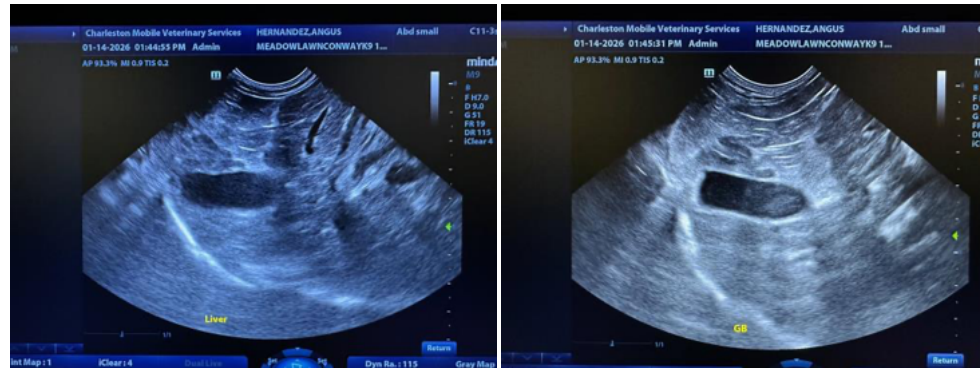
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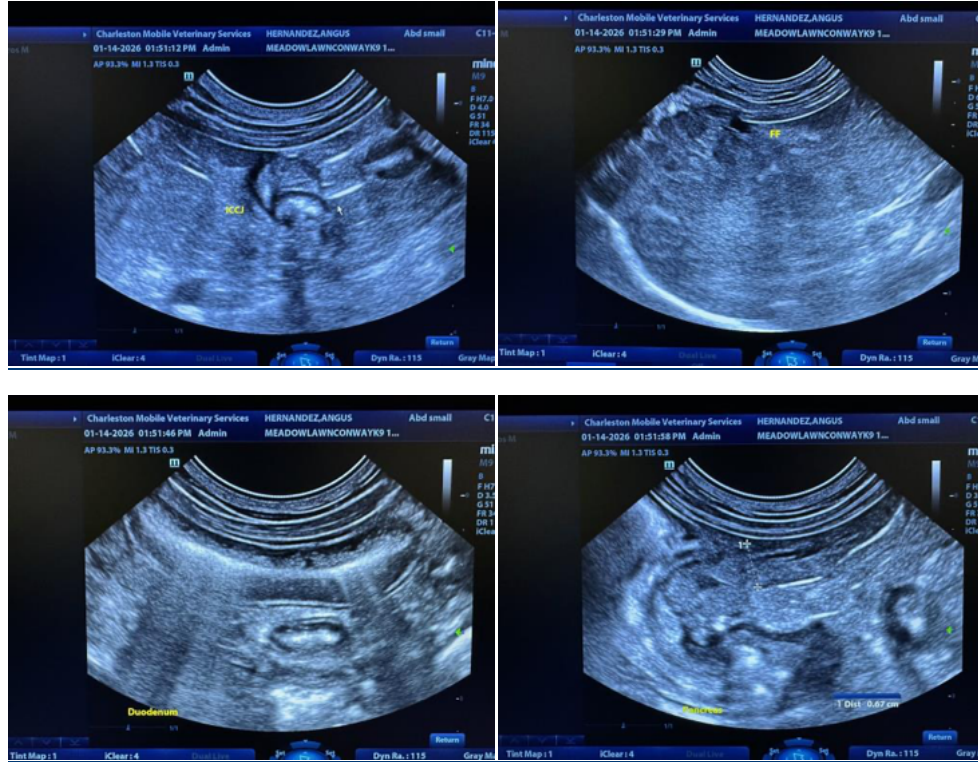
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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