



PATIENT PRESENTING CLINICAL SIGNS

Copper Morrison The patient has a history of elevated liver enzymes. Labs from 8/11/22: ALP 1897, ALT 148. Liver enzymes have been increasing steadily over the last year. Acting off recently.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED

Lab

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is distended with mostly 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.

SEX

Male, neutered

The prostate is normal in size (1.09 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

AGE

12 Yrs.

The left kidney is normal size (6.58 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

61.9 lbs.

The right kidney is normal size (7.28 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

Andrea Nicastro, DVM,
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(Small Animal Internal
Medicine)

Adrenal Glands

The left adrenal gland is mildly enlarged (0.89 cm at cranial pole) (1.04 cm at caudal pole) (2.97 cm in length) with a slightly irregular shape. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

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The right adrenal gland is mildly enlarged (1.56 cm at cranial pole) (0.76 cm at caudal pole) (3.02 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.

HOSPITAL NAME

Southside AH

Spleen

The spleen is normal in size (1.97 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.

REFERRING VET

Dr. Brock Sauls

Liver

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion.

INVOICE

13906

DATE

9/6/22

The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of aggregated echogenic suspended sludge in a partially stellate pattern is observed within the lumen. The cystic and common bile ducts are normal/not seen.



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Gastrointestinal

The gastric lumen is mildly distended with soft shadowing material. 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.

Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

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

Other

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

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The gallbladder changes are consistent with a developing mucocele.
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory is considered less likely, particularly in light of the liver enzyme pattern. Infiltrative neoplasia is also considered unlikely given the sonographic appearance of the liver.
- The mild bilateral adrenomegaly may be a normal variant for this large breed patient or may represent early hyperplastic change. Correlation with the patient's clinical history is recommended.

Secondary Findings:

- The gastric luminal contents could be consistent with ingesta and/or foreign material (i.e., grass, cloth). The material appears non-obstructive at this time.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the gall bladder changes, Ursodeoxycholic acid (Ursodiol) at 10-15 mg/kg once a day is recommended. A recheck ultrasound is recommended in 4-6 weeks to assess for progression to a fully formed mucocele. Timing of future follow-up ultrasounds should be based on the sonographic appearance of the gall bladder at the recheck.
- Also consider empirical treatment for cholecystitis with a 2-4-week course of amoxicillin-



PATIENT

clavulanic acid. Liver enzymes should be rechecked at the end of the antibiotic course.

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- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop.

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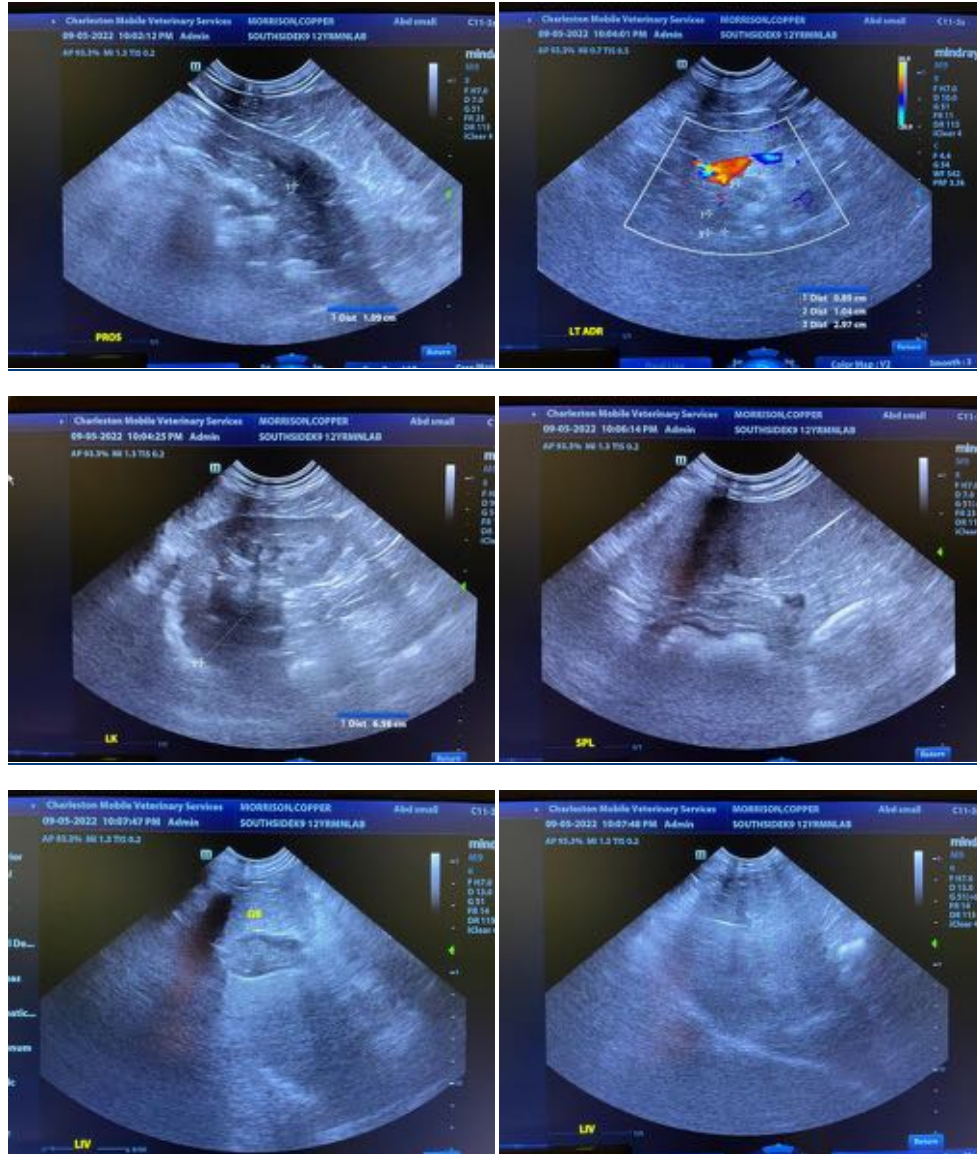
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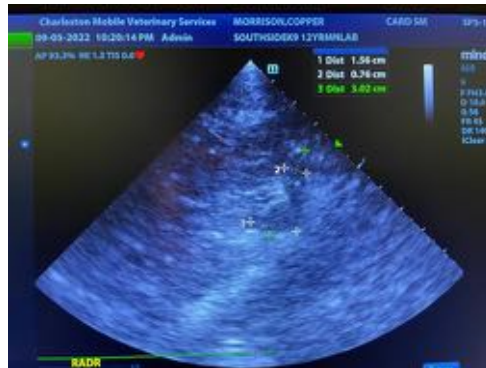


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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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