



PATIENT

Cooper Norton

SPECIES

Canine

BREED

Golden Retriever

SEX

Neutered Male

AGE

9 years

WEIGHT

35.8 kg

INTERPRETED BY

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

**IMAGING
PERFORMED BY**

Dr. Isermann

HOSPITAL NAME

Animal EH Volusia

REFERRING VET

Cooper Norton

INVOICE

13975

DATE

8.7.23

PRESENTING CLINICAL SIGNS

History: Presented for ADR, started vomiting last night. Has been restless and uncomfortable since Case Upload Status

Uploaded
Abnormal PE/Chem/CBC/UA Results: ALT: >1000

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone and visible portion of the proximal urethra are normal.

The region of the prostate is not visualized due to its pelvic location.

The left kidney is normal in size (8.18 cm in length) with a normal shape, architecture and 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 hydronephrosis.

The right kidney is normal in size (7.52 cm in length) with a normal shape, architecture and 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 hydronephrosis.

Adrenal Glands

The region of the adrenal glands is evaluated. No obvious pathology is observed in this region.

Spleen

The spleen is normal in size (1.78 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 contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative, or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.

The gall bladder is moderately distended. The wall is normal to slightly thickened (up to 0.23 cm) and hyperechoic. A moderate-to-large amount of aggregated, echogenic, hyperechoic suspended sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The lumen is not distended. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is segmentally dilated with chyme. 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. There is no evidence of an obstructive pattern.

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.



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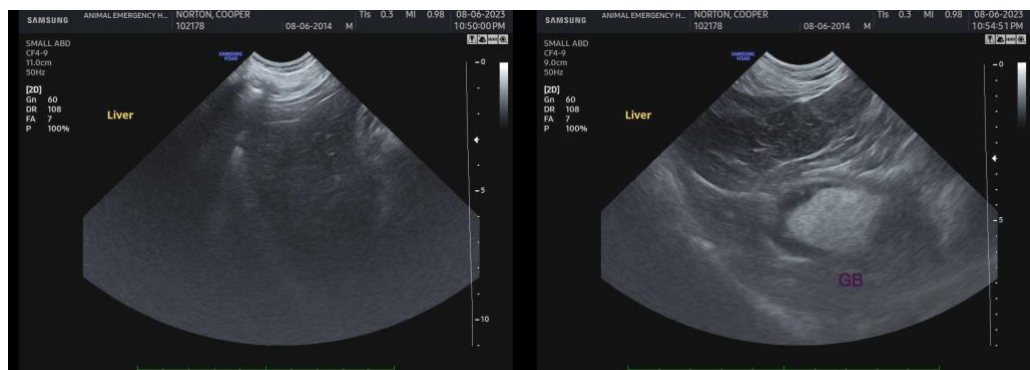
ULTRASONOGRAPHIC FINDINGS

Findings

- The gallbladder wall changes are suggestive of cholecystitis. The gallbladder sludge presentation may be due to an emerging mucocele, cholestasis, or less likely, fasting.
- The hepatic parenchymal changes are nonspecific and may be secondary to an inflammatory hepatopathy (i.e., bacterial cholangiohepatitis, chronic hepatitis), hepatotoxicosis, Leptospirosis, infiltrative neoplasia (less likely), other hepatopathy.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Leptospirosis testing (i.e., blood and urine PCR, serology) is recommended.
- Also consider pre-and postprandial serum bile acids to assess hepatic function.
- 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 more conservative approach is desired, consider empirical treatment for cholangiohepatitis/Leptospirosis/cholecystitis with amoxicillin-clavulanic acid along with hepatic antioxidants. If liver values do not begin to improve within 7-10 days of initiating therapy, antibiotics should be discontinued and hepatic tissue sampling reconsidered. If values do improve, a 4-6-week course of treatment is recommended.
- Regarding the gallbladder changes, consider initiation of Ursodiol with a repeat abdominal ultrasound in 5-7 days to reassess the gallbladder. If stable, periodic monitoring (i.e., every 4-6 weeks) is recommended to assess for progression to a fully-formed mucocele.





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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)
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