



PATIENT PRESENTING CLINICAL SIGNS

Faith Nearhood History: presented with acute v/d/inappetance/lethargy.
Abnormal PE/Chem/CBC/UA Results: Increased liver enzymes: ALT >1000, AST 348, A:P 896, GGT .32, TB 0.8

SPECIES

Canine

BREED

Dachshund Mix

SEX

Female Spayed

AGE

7 years

WEIGHT

28 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Tasha

HOSPITAL NAME

Dillsburg VC

REFERRING VET

Dr. Jacobs

INVOICE

12176

DATE

2.8.23

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is 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. The region of the trigone and visible portion of the proximal urethra are normal.

The left kidney is normal in size (5.10 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. The cortex is isoechoic relative to the spleen. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney is normal in size (5.54 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. The cortex is isoechoic relative to the spleen. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal size (0.56 cm at cranial pole) (0.66 cm at caudal pole); 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.

The caudal pole of the right adrenal gland is visualized and normal size (0.67 in width) with a normal shape, glandular echogenicity and detail. Surrounding vasculature appears normal.

Spleen

The spleen is normal in size (1.77 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A few hyperechoic nodules are observed throughout the organ. Splenic vasculature is normal.

Liver

The liver is prominent normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and homogenous in appearance. No focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder is distended. The wall is normal in thickness and is hyperechoic. A small amount of suspended echogenic, in a questionable partial stellate pattern is observed near the gall bladder neck. 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 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. 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.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Given the patient's clinical history and sonographic liver and gall bladder changes, the following are top differentials: Leptospirosis, inflammatory hepatopathy (i.e., bacterial cholangiohepatitis, chronic hepatitis), hepatotoxicosis (i.e., copper), cholecystitis, emerging gall bladder mucocele, other hepatopathy.

Secondary Findings

- The hyperechoic lesions adjacent to the splenic vessels are most consistent with myelolipomas. Although a neoplastic process within the spleen cannot be excluded, it is considered unlikely in this patient.
- Minor bilateral age-related renal changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Leptospirosis testing (i.e., blood and urine PCR; serology) is recommended.
- Consider hepatic tissue sampling (i.e., fine-needle aspirate or biopsy (i.e., laparoscopic or surgical)), if clotting status is normal. If biopsies are pursued, the gall bladder should be evaluated +/- removed (if indicated). Aerobic and anaerobic bile cultures should be performed, and additional hepatic tissue sampling should be obtained for potential copper quantitation. While awaiting test results, empirical treatment for bacterial cholangiohepatitis/cholecystitis/ Leptospirosis/ hepatotoxicosis is recommended, including amoxicillin-clavulanic acid, hepatic antioxidants, and symptomatic care, as well as Ursodiol therapy.
- Close monitoring of the patient's liver values is recommended. If the ALP and total bilirubin continue to increase, a repeat abdominal ultrasound is recommended to reassess the gall bladder and cystic/common bile ducts.
- Serial sonographic monitoring (i.e., 4-6 weeks) of the patient's gall bladder is recommended to assess for progression to a fully-formed mucocele.

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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