

**DATE PRESENTING CLINICAL SIGNS**

1/5/2022

History: Acute vomiting 6 times in last 10 hours. no history toxin, inappetence, inc Bilirubin, ALT too high to read, three thin radiopaque opacities in cranial abdomen- unsure if its stomach.

PATIENT

Lucy Beavers

Current Medications: Gabapentin 50mg today @ 10am.

Lab Results: CBC WNL, ALT off the scale, T-bili 2.0, normal ALP. Repeated mini-chem shows an ALT of 3263, globulins 5.8.

Radiographs: three thin radiopaque opacities in cranial abdomen.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: REQUESTED.

Imaging Performed By: Andi Parkinson, RDMS.

SPECIES

Canine

BREED

Jack Russell Terrier

SEX

Female, spayed

AGE

3/9/2009

WEIGHT

10 lbs.

INTERPRETED BY

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

HOSPITAL NAME

Animal Care Clinic

REFERRING VET

Dr. Beavers

INVOICE

12796

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 (4.37 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. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (4.05 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.

Adrenal Glands

The left adrenal gland is borderline enlarged (0.48 cm at cranial pole) (0.59 cm at caudal pole) (1.48 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.

The right adrenal gland is mildly enlarged (1.00 cm at cranial pole) (0.93 cm at caudal pole) (2.32 cm in length) with a slightly irregular shape. The parenchyma is subtly heterogeneous with some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.56 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 portal vein: 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

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not 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 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 left and right limbs are visible with normal curvilinear peripheral contours. The parenchyma is slightly hypoechoic relative to surrounding omental fat. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated. There is no evidence of peripancreatic effusion.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. A 0.64 cm lymph node is observed in the cranial abdomen.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- An obvious cause for the patient's severely elevated ALT is not identified in this study. Differentials include inflammatory/infectious disease (i.e., bacterial cholangiohepatitis, Leptospirosis), hepatotoxicosis, infiltrative neoplasia (unlikely), immune mediated disease (less likely, particularly if the enzyme elevations are acute), other hepatopathy.
- The pancreatic changes may be a normal variant for this patient or could be consistent with mild, chronic pancreatitis. Correlation with clinical findings is recommended.

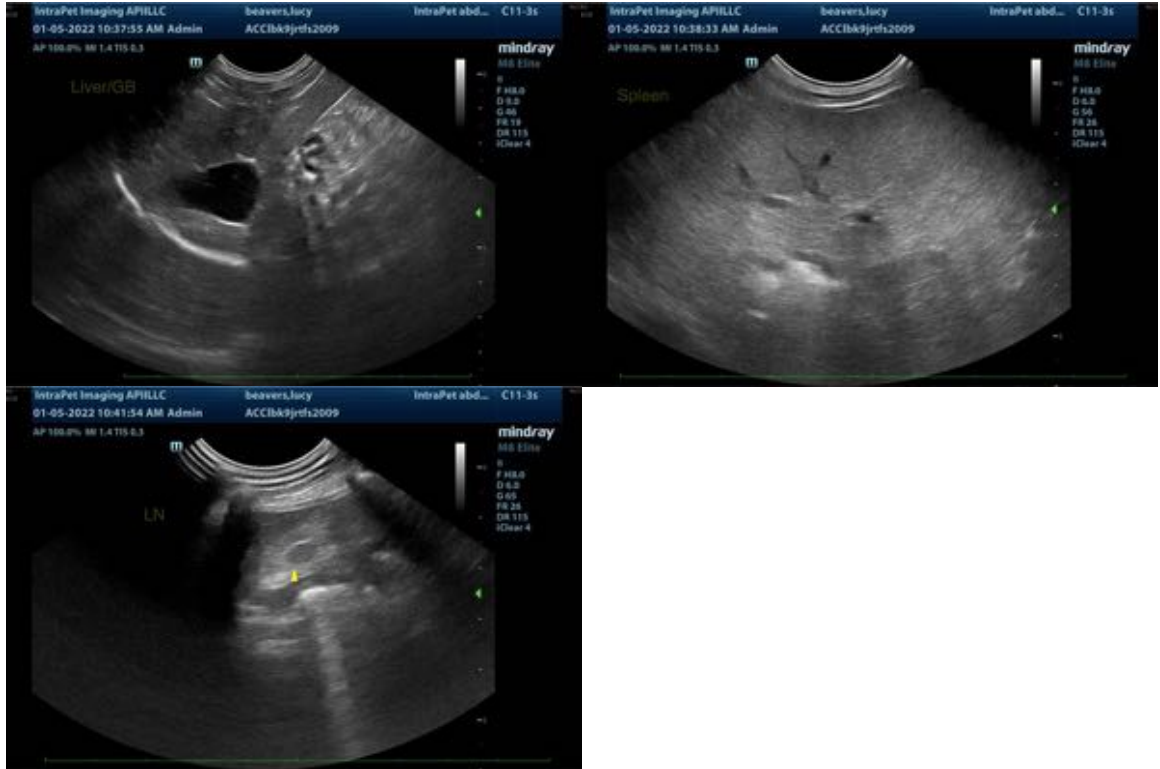
Secondary Findings:

- Mild bilateral adrenomegaly, more pronounced on the right side.
- Minor age-related renal changes.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Leptospirosis testing including blood and urine PCR, serology is recommended.
- 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/Leptospirosis (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.
- Also consider a cPLI to further assess for pancreatitis.





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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