

**DATE PRESENTING CLINICAL SIGNS**

8/10/21

Inappetence, not drinking well, no change in urination,
 Vomiting, soft stool. No known ingestion of foreign material or exposure to toxin vaccinated for leptospirosis.

PATIENT

Roxi Lark

Current Medications: Hospitalized on IVF 90 mL/kg/day and received Cerenia, metro, Pepcid, B12 and Denamarin starting yesterday 8/9.

Lab Results: ALT 929 (prev. wnl april 2021). ALP, GGT, t bili wnl.
 otherwise GHP1 wnl.

SPECIES

Canine

Date of Previous IntraPet Ultrasound: No previous

Sedation: not needed

Stat Report: not requested

BREED

Mixed breed

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 mildly 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.

AGE

8/29/20

The left kidney is normal size (6.44 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

43.7 lbs.

The right kidney is normal size (5.27 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

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

Adrenal Glands

The left adrenal gland is normal size (0.51 cm at cranial pole) (0.50 cm at caudal pole) (2.52 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

Churchville VC

The right adrenal gland is normal size (0.59 cm at cranial pole) (0.66 cm at caudal pole) (2.42 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.

REFERRING VET

Dr. Uhland

Spleen

The spleen is normal in size (1.82 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.

INVOICE

11856

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 lumen is moderately distended. The wall is thin and smooth. A scant amount of suspended echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

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 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. 2-3 prominent lymph nodes are observed just medial to the cranial aspect of the spleen, the largest measuring 1.77 cm in diameter. A prominent lymph node is also observed at the aortic trifurcation (1.53 cm length).

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

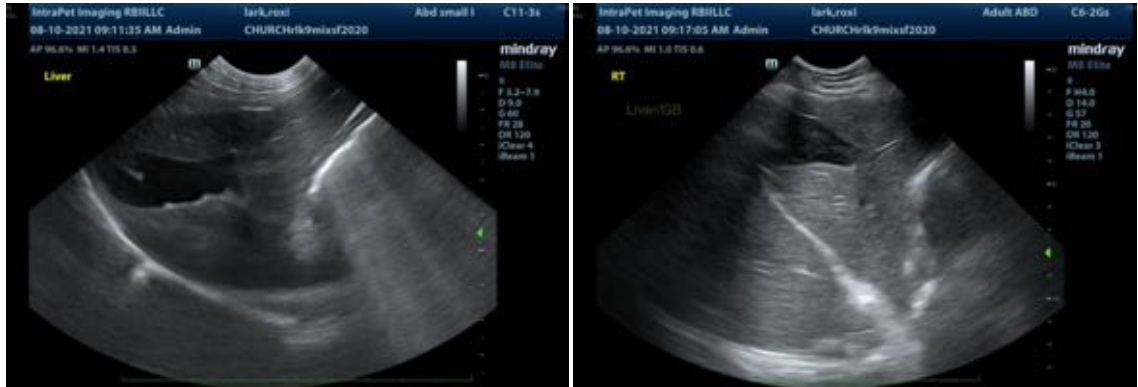
- The prominent abdominal lymph nodes are likely secondary to immunologic immaturity and/or reactive change.

*An obvious cause for the patient's elevated ALT is not identified in this study; however, a microscopic hepatopathy (i.e., cholangiohepatitis, hepatotoxicosis, leptospirosis, other hepatopathy) is probable.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Despite the history of leptospirosis vaccination, further testing for leptospirosis (i.e., blood and urine PCR, serology), is recommended as there is still a risk for infection with non-vaccinal strains.
- 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.
- Three-view thoracic radiographs are also recommended to evaluate cardiopulmonary status and to assess for occult aspiration pneumonia.





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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