**DATE PRESENTING CLINICAL SIGNS**

4/7/2022

Pre-operative screen for surgery. Geriatric with new mild liver value elevation. Hypothyroid since 10/2018.

PATIENT

Lola Long

Current Medications: >3 years: Thyroxine 0.3mg BID, dose adjusted over the years.

Lab Results: 3/18/22- ALKP 199, ALT 133, T4 3.3.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

SPECIES

Canine

BREED

Siberian Husky

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Spayed Female

Urinary System

The bladder is moderately distended with anechoic urine. The wall is thickened in the region of the apex (up to 0.53 cm) with a slightly irregular mucosal surface. The wall tapers to a normal thickness as it extends towards the cystourethral junction. No cystic calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

AGE

9/8/2011

The left kidney presented normal size (6.36 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

71.4 lbs

The right kidney presented normal size (6.36 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, DMV,
Diplomate DACVIM
(Small Animal
Internal Medicine)

Adrenal Glands

The left adrenal gland is normal size (0.48 cm at cranial pole) (0.58 cm at caudal pole) (2.70 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

Everhart Veterinary
Hospital

The right adrenal gland is normal size (0.83 cm at cranial pole) (0.61 cm at caudal pole) (2.54 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. Notarangelo

Spleen

The spleen is normal in size (1.72 cm in width at the level of the hilus) with a normal capsular contour. The parenchyma is slightly mottled in appearance. No focal lesions are observed. Splenic vasculature is normal.

INVOICE

10715

Liver

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is slightly mottled in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion

The gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic and mostly gravity dependent. The cystic and common bile ducts are normal.

Gastrointestinal

The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract appears patent. The small intestinal lumen is not dilated. The small intestinal wall is normal in thickness with a normal layering pattern. There is slight disruption in the normal 1:3 muscularis: mucosal ratio in some segments. 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.

Other

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

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The liver enzyme pattern and sonographic hepatic changes are suggestive of a benign hepatopathy (i.e., regenerative nodular hyperplasia and/or vacuolar hepatopathy). However, a more pathologic process (i.e., emerging inflammatory disease, hepatotoxicosis, Leptospirosis, infiltrative neoplasia) cannot be completely excluded.
- Gall bladder debris, non-mucocele

Secondary Findings

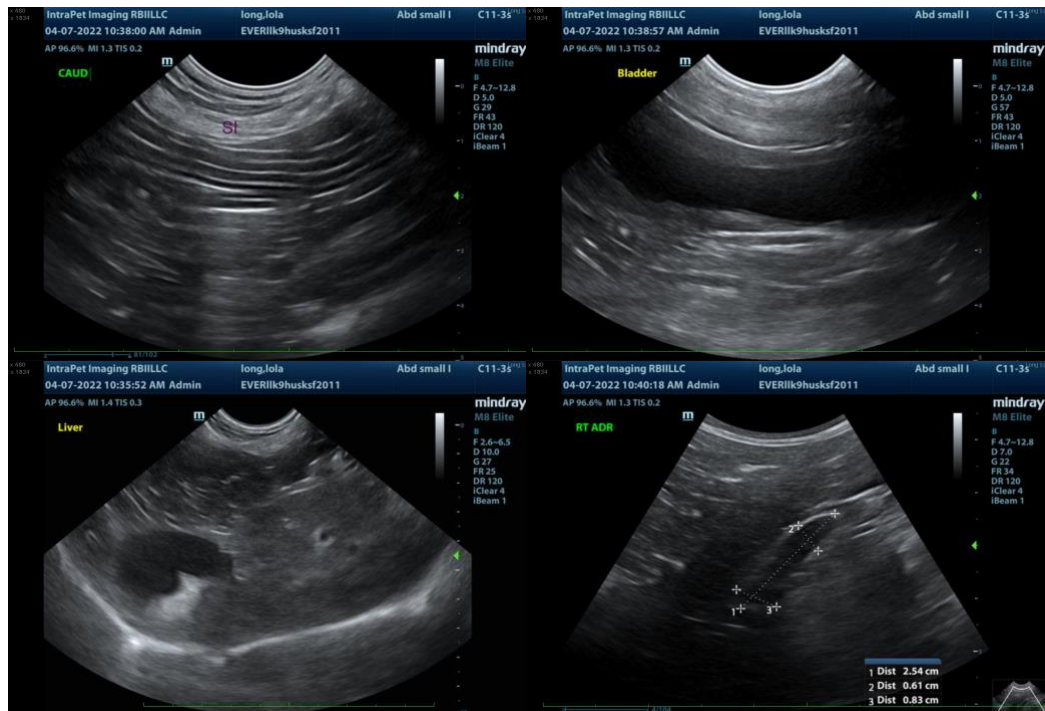
- The splenic parenchymal changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis or splenitis with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).
- The small intestinal wall changes are suggestive of inflammatory bowel disease. However, they may be a normal variant for this patient. Correlation with clinical findings is recommended.
- The bladder wall thickening is likely secondary to lack of full repletion. However, cystitis is also a consideration, particularly if the patient has a history of urinary tract infections.

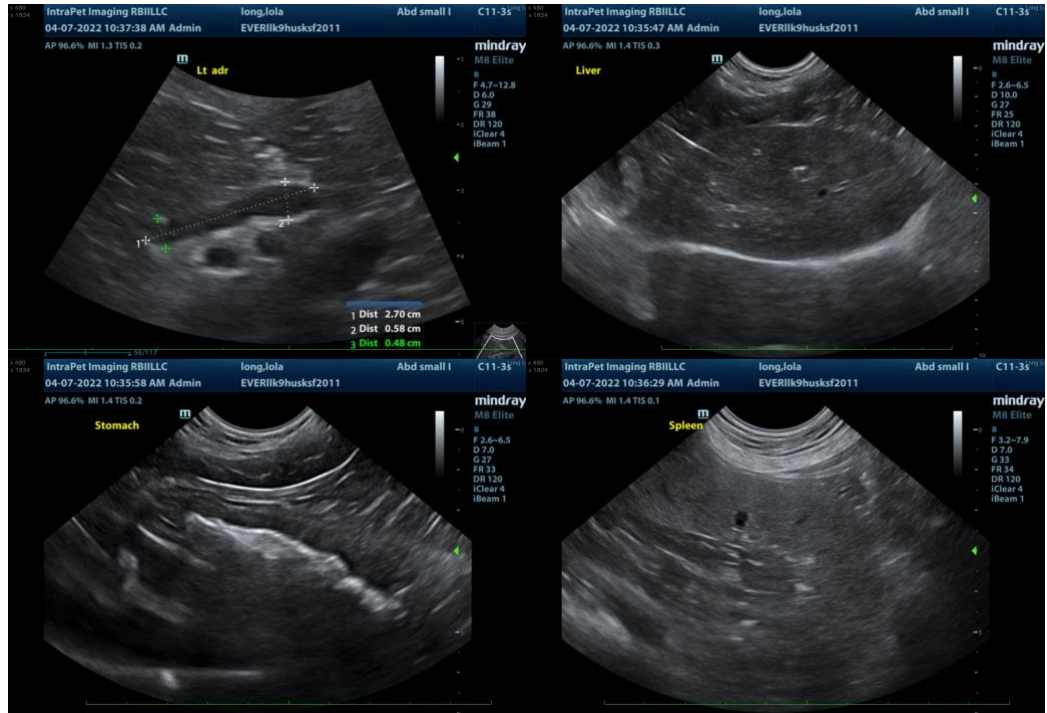
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Consider Leptospirosis testing (i.e., blood and urine PCR, serology).
- If conservative approach desired, consider serial monitoring (i.e., every 3-4 months) of the patient's liver values. If values continue to increase, a repeat abdominal ultrasound +/- a more advanced liver work-up may be warranted. Empirical treatment (amoxicillin-clavulanic acid +/- metronidazole,

Denamarin) for bacterial cholangiohepatitis can also be considered. However, if the liver values do not improve within 5-7 days of initiating therapy, antibiotics should be discontinued.

- Ultimately a liver biopsy may be necessary to get a definitive diagnosis. If biopsies are pursued, bile cultures and copper quantitation on hepatic tissue samples should also be performed.





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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