

**DATE**

9/20/21

PRESENTING CLINICAL SIGNS

History: Dog presented for annual vaccines. Dental was recommended. Pre-op bloodwork showed sig elevation of ALT, mild elevation of ALP and sig hypoglycemia so an AUS was recommended. When questioned owner said dog drinks A LOT.

PATIENT

Cami Severt

Current Medications: Fluoxetine 32 mg (3/4) PO SID since 07/2018.

SPECIES

Canine

Lab Results: Chemistry: ALT: 598 H (12-118), AST: 52 WNL, Alk Phos: 159 H, GGTP: 23 H (1-12), Glucose: 10 L, All other chemistry WNL. CBC: WNL, T4: 1.9 WNL, UA: SpG: 1.010, pH: 8.5, Prot: neg, Sediment: 0-1 WBC, All else on UA WNL.

BREED

Beagle Mix

Radiographs: Not provided by the veterinarian.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

SEX

Spayed Female

Sedation: IV Torb 0.1-0.3 mg/kg Midazolam 0.1-0.2 mg/kg

Stat Report: not requested

AGE

9/12

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 is moderately distended. A scant amount of echogenic debris is observed within the lumen. 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.

WEIGHT

51.8 lbs

The left kidney is normal size (6.54 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.

The right kidney is normal size (6.71 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,
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(Small Animal Internal
Medicine)

HOSPITAL NAME

Docside VMC

Adrenal Glands

The left adrenal gland is normal size (0.55 cm at cranial pole) (0.61 cm at caudal pole) (2.32 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. Tierney

The right adrenal gland is normal size (0.71 cm at cranial pole) (0.67 cm at caudal pole) (2.48 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.

INVOICE

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Spleen

The spleen is normal in size (1.29 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A few small, ill-defined, hyperechoic areas are observed throughout the organ. 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 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/not seen.

Gastrointestinal

The gastric lumen is moderately distended with ingesta. The gastric wall is mildly thickened (up to 0.80 cm) with retention of the normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall is normal to mildly thickened (0.51 cm) with a normal layering pattern. There is evidence of mucosal fogging in some segments. Additionally, there is disruption in the normal 1:3 muscularis to mucosal ratio in a few regions. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas

A portion of the pancreas is obscured by the gastric distension. The remainder of the pancreas has normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen

Focal areas of reactive mesentery are seen throughout the abdomen. Trace free fluid is observed. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis. No obvious masses are seen. However, the gastric luminal distension obscures a portion of the pancreatic region.
- Bowel changes consistent with inflammatory bowel disease with potential for emerging lymphoma.
- The reactive mesentery/mild peritonitis may be secondary to bowel and/or pancreatic pathology.

Secondary Findings:

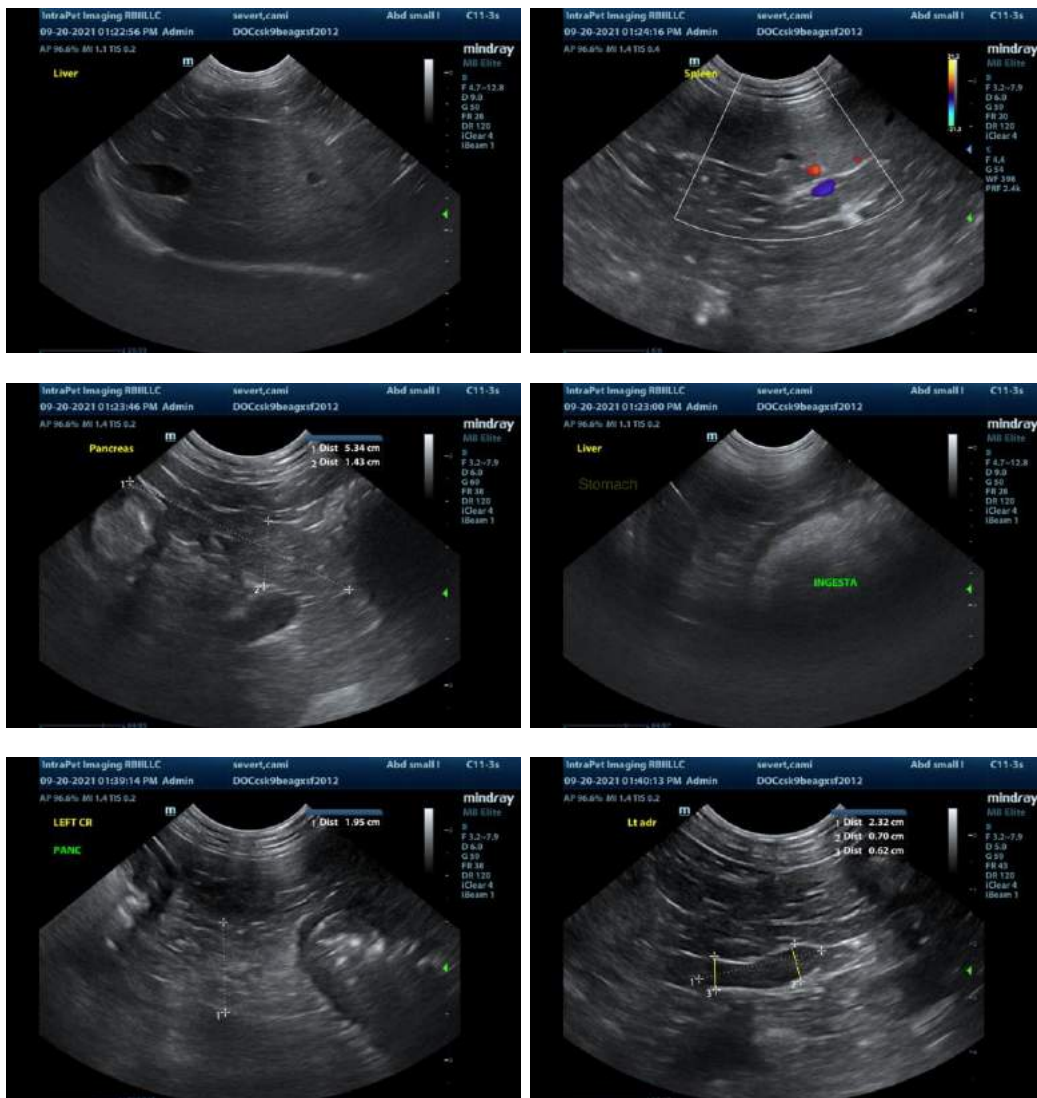
- The splenic parenchymal changes are most consistent with a benign process (i.e., small myelolipomas or areas of lymphoid hyperplasia).

**An obvious cause for the elevated liver enzymes is not identified in the study. However, a microscopic hepatopathy (i.e., bacterial cholangiohepatitis, Leptospirosis, chronic active hepatitis, copper-associated hepatotoxicity, infiltrative neoplasia (less likely)) cannot be excluded.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

1. Regarding the hypoglycemia, consider the following diagnostics:
 - a. Pre- and post-prandial serum bile acids to assess for hepatic dysfunction

- b. Insulin to glucose ratio
 - c. +/- an ACTH stimulation test to assess for hypoadrenocorticism.
2. Regarding the elevated liver enzymes, consider the following:
 - a. Fine needle aspirate of the liver (if clotting status is appropriate). A 25-gauge needle should be used.
 - b. Leptospirosis testing (i.e., blood and urine PCR; serology)
3. Depending on the results of the above diagnostics, a surgical liver biopsy with aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for possible copper quantitation may be warranted.





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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