



PATIENT

Dinah Zumbrum

PRESENTING CLINICAL SIGNS

SPECIES

Canine

History: Drinking more water with loose stool and slight lethargy for a few days
Abnormal PE/Chem/CBC/UA Results: Elevated ALT- 262 Elevated Alkp- 624 Current Medications

BREED

Great Dane

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

SEX

Spayed Female

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.

AGE

7 years

The left kidney presented normal size (9.64 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 hydronephrosis. Renal vasculature is normal.

WEIGHT

140 lbs

The right kidney presented normal size (6.82 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 hydronephrosis. Renal vasculature is normal.

INTERPRETED BY

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

Adrenal Glands

The left adrenal gland is normal size (0.98 cm at cranial pole) (0.67 cm at caudal pole) (3.25 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.

IMAGING PERFORMED BY

Sara Hansen

The right adrenal gland is normal size (0.91 cm at cranial pole) (0.71 cm at caudal pole) (4.26 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

Edgewood AC

Spleen

The spleen is normal in size (2.91 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.

REFERRING VET

Dr. Kimball

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

DATE

4/6/22

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.

INVOICE

10694



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Gastrointestinal

gastric lumen is mildly distended with ingesta. 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. No obstructive or overt infiltrative 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. The abdominal lymph nodes are normal/not visible.

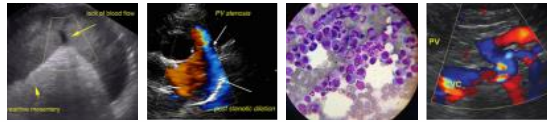
ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The patient's clinical signs, blood work abnormalities and sonographic changes are suggestive of a hepatopathy. Differentials include inflammatory hepatopathy (i.e., chronic active pancreatitis, bacterial cholangiohepatitis), Leptospirosis, hepatotoxicosis (i.e., copper), other hepatopathy. However, it is possible that the liver enzyme elevations are unrelated to the patient's clinical signs.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Pre-and postprandial serum bile acids are recommended to assess hepatic function.
- Also consider Leptospirosis testing (i.e., blood and urine PCR, serology).
- Consider hepatic tissue sampling (i.e., fine-needle aspiration or surgical biopsy). Surgical biopsies would be ideal in that they are more likely to provide a definitive diagnosis. Gastrointestinal biopsies can also be obtained at the time of surgery to assess for concurrent disease, particularly given the patient's diarrhea. Aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for potential copper quantitation are recommended at the time surgery.
- If a conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis (amoxicillin-clavulanic acid, +/- metronidazole, Denamarin). 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.
- Given the patient's age, thoracic radiographs are recommended prior to anesthesia.
- A malabsorption panel, including serum cobalamin and folate, TLI and PLI, as well as a fecal evaluation for ova and Giardia can also be considered to assess for concurrent disease.



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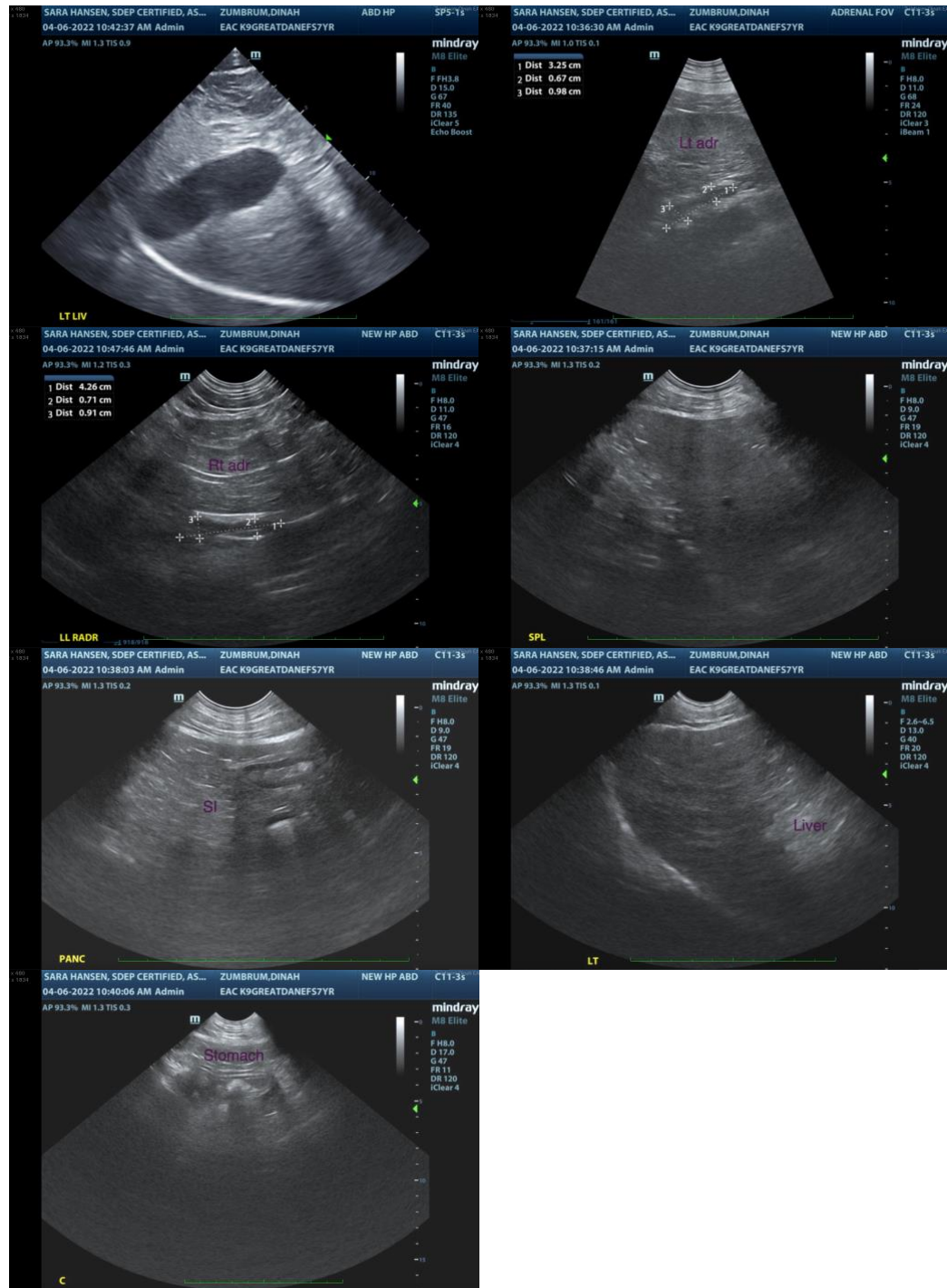
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



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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.

Andrea Nicastro, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com