



PATIENT PRESENTING CLINICAL SIGNS

Ginger Helms Elevated liver values, obese

ALP 693, ALT 92, GGT 1.4, TBili 3.2, Albumin 4.5

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

BREED

Pomeranian Mix

The urinary bladder, trigone, and cystourethral junction exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

SEX

The area of the aortic trifurcation was free of pathology.

FS

AGE

2015

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The bilateral kidneys exhibited mild uniform increased inner cortex echogenicity at the level of the corticomedullary border. This is nonspecific and likely a patient variant and not considered pathological. No evidence of pelvic dilation was noted in either kidney. The left kidney measured 3.6 cm in length. The right kidney measured 3.95 cm in length.

WEIGHT

17

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.52 cm width at the caudal pole and 0.41 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.48 cm width at the caudal pole and 0.66 cm width at the cranial pole.

INTERPRETED BY

R. McKenzie Daniel,
 DVM, DABVP
 (Canine and Feline)

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Subtle symmetrical rounding of the cranial splenic capsule was noted. This is not considered pathological and likely a patient variant. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

IMAGING

PERFORMED BY
 Rebekah Jakum, CVT
 ARDMS/RVT

HOSPITAL NAME

Mill Pond VC

Liver/ Gallbladder

REFERRING VET

Dr. Schnolis

The liver exhibited subjective mild generalized enlargement. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with mild, nonmineralized luminal debris. The gallbladder walls were sonographically normal without evidence of inflammatory changes, as well as no evidence of peri-gallbladder inflammation. The cystic and common bile ducts were normal.

INVOICE

13516

DATE

3/17/22



PATIENT *Gastrointestinal*

Ginger Helms The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material.

SPECIES The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material.

Canine Normal visible colon wall layers were present with apparent formed feces in lumen.

BREED *Pancreas*

Pomeranian Mix The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

SEX *Free Abdomen*

FS No overt lymphadenopathy or peritoneal effusion was present.

AGE **ULTRASONOGRAPHIC FINDINGS**

2015

Primary Findings

- WEIGHT**
- Hepatopathy - subjectively benign
 - Mild gallbladder debris (non-mucocele)

17

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(Canine and Feline)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The overall appearance of the liver was nonspecific yet consistent with benign hepatopathy. Considerations may include idiopathic vacuolar hepatopathy or nonobstructive hepatic cholestasis, given the ALP/GGT/Total Bilirubin combination, with potential for primary or concurrent inflammatory parenchymal disease, given the previous yet resolved ALT elevation. No overt evidence of neoplastic criteria was noted.

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Further assessment may include, assuming normal clotting status, ultrasound-guided FNA of the liver using a 25-gauge needle for screening cytology primarily to assess for evidence of Inflammatory cells +/- Leptospirosis titers / PCR if clinically indicated. Empirically, hepatosupportive medications including Denamarin and Ursodiol +/- hydrolyzed diet trial to eliminate any potential ongoing hepatic antigen stimulation may prove beneficial. Ultimately, a hepatic core surgical biopsy may be required for a definitive diagnosis.

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SEX

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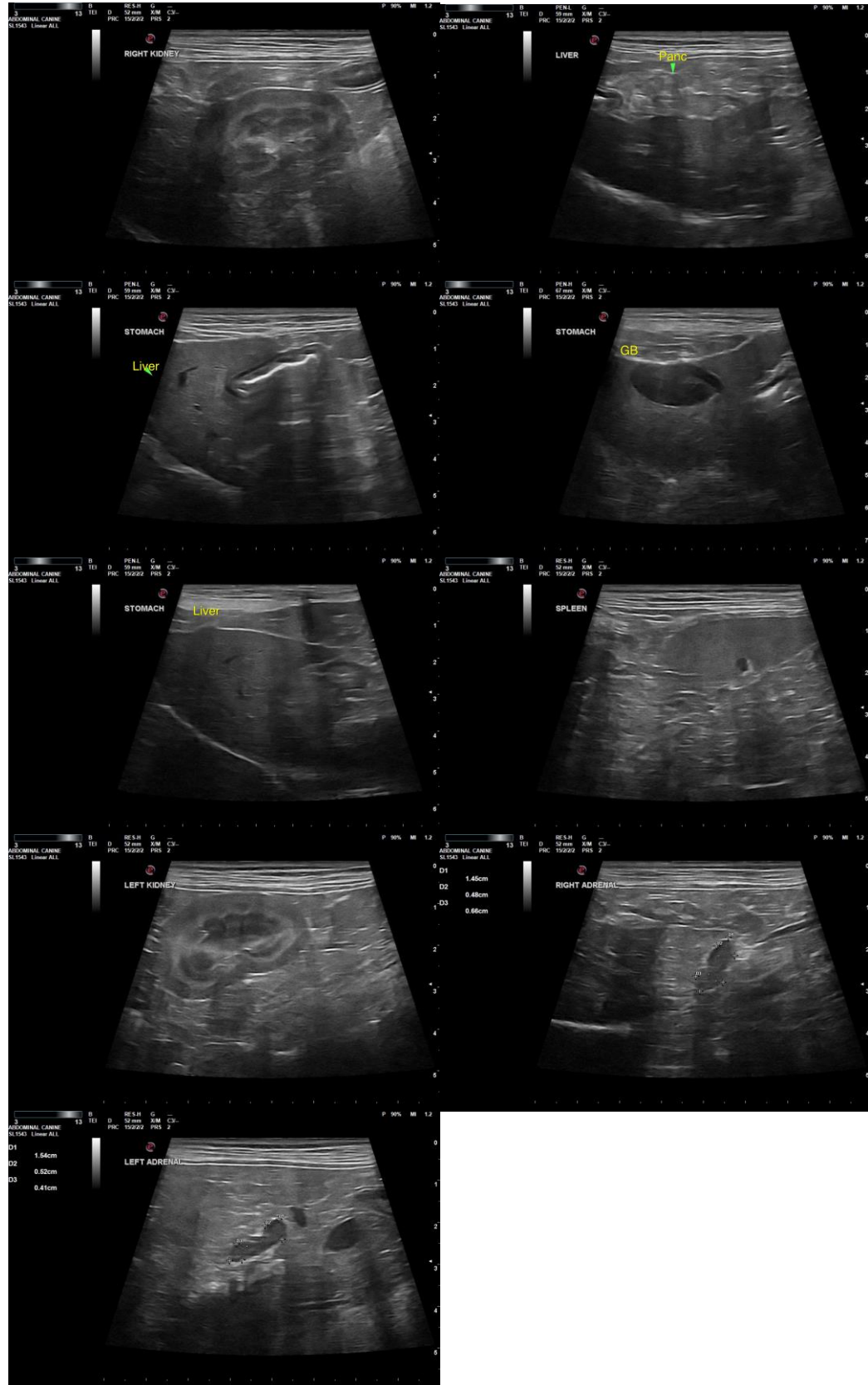
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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