



PATIENT

Gizmo Toews

SPECIES

Canine

BREED

Shih Tzu Mix

SEX

Neutered Male

AGE

13 Years

WEIGHT

11.7 kg

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP (Canine
/ Feline Practice)

IMAGING PERFORMED BY

Carlie Koltek RVT

HOSPITAL NAME

Tuxedo Animal
Hospital

REFERRING VET

Dr. Bargen

INVOICE

15080

DATE

04/13/26

PRESENTING CLINICAL SIGNS

Screening bloodwork revealed some liver elevations and a very high BIL. Dog is BAR, active and eating well. Dog is on previcox, cartophen and gabapentin for OA. DDx - cholestatic disease, possibly biliary sludge. Possible ursodiol therapy if appropriate

CBC: MCV 61.0 (61.6 - 73.5 fL) Platelets 127 (148 - 484 x10⁹/L) MPV 14.8 (8.7 - 13.2 fL) CHEM: UREA 18.1 (2.5 - 9.6 mmol/L) ALB 43 (22 - 39 g/L) ALT 190 (10 - 125 U/L) ALKP 249 (23 - 212 U/L) TBIL 27 (0 - 15 μmol/L)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra 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 change were noted.

Normal size and margination was present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. Focal areas of medullary mineral were present. The left kidney measured 5.5 cm in length. The right kidney measured 5.2 cm in length.

Adrenal Glands

The bilateral adrenal glands were enlarged in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.75 cm width in the caudal pole. The right adrenal gland measured 0.68 cm width in the caudal pole.

Spleen

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Intermittent noncapsule deforming perihilar to medial hyperechoic nodules were present. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory or neoplastic changes were not noted. The echogenic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

Liver & Gallbladder

The liver presented mild / moderately enlarged in size. 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. Intermittent mild nonhomogenous hyperechoic intraparenchymal nodules were present.

The gallbladder was non distended in size with normal wall. Mild echogenic, nonmineralized, non-dependent biliary sludge is present. The biliary sludge is congealed without organization. No signs of peripheral inflammation.

Gastrointestinal



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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.

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.

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

Pancreas

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

Free Abdomen

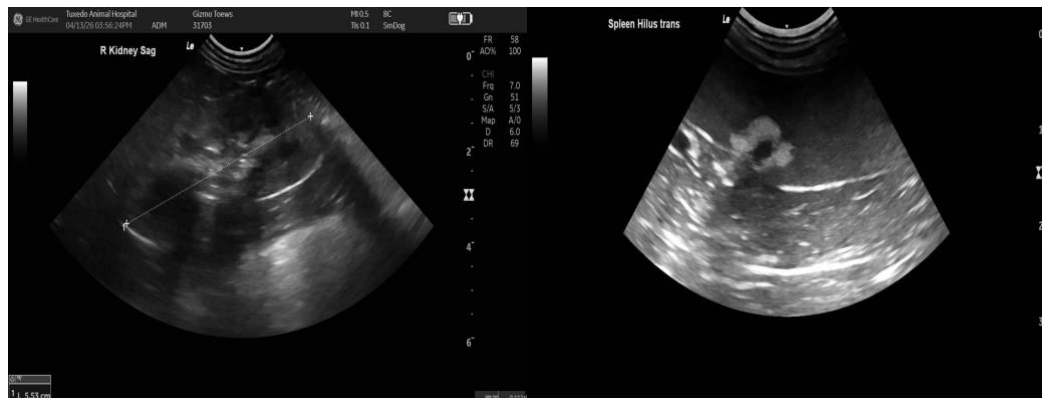
No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Hepatopathy with nonuniform hyperechoic intraparenchymal nodules- vacuolar/cholestatic hepatopathy, inflammatory disease, suspect areas of nodular hyperplasia or granulomas, emerging nodular to occult neoplasia thought less likely yet not excluded.
- Immature gallbladder mucocele- no evidence of posthepatic obstruction.
- Chronic renal changes exhibiting focal medullary mineral.
- Bilateral mild adrenomegaly.
- Pancreatic remodeling.
- Hyperechoic splenic nodules- most consistent with probable myelolipomas.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Adrenal workup is warranted if clinical signs are consistent with Cushing's syndrome in conjunction with decreased urine-specific gravity. Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered. A spec cPL could be considered if concurrent clinical signs, which may suggest chronic pancreatitis. Hepatosupportive medications including ursodiol, would be appropriate with clinical and sonographic monitoring if evidence of progressive hepatopathy, cholestasis, and for progressive hepatic nodular changes.





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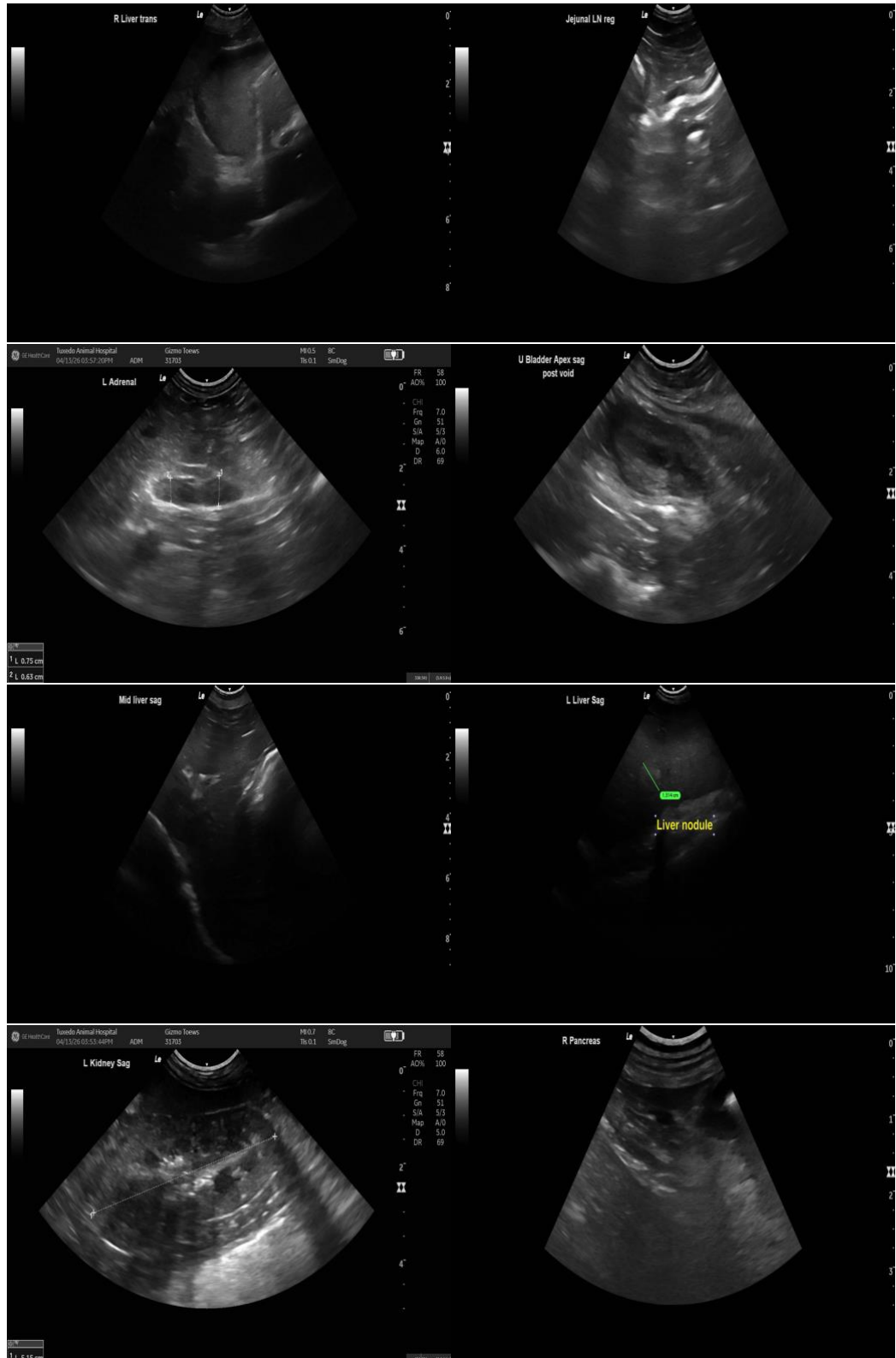
Dr. Bargaen

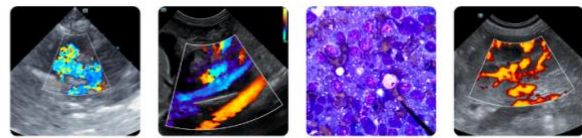
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

info@SonoPath.com