IMAGING PERFORMED BY

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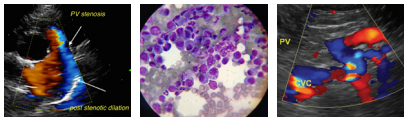

SonoPath
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DATE

3/29/22

PATIENT

Toby Greenawalt

SPECIES

Canine

BREED

Collie X

SEX

Neutered Male

AGE

11/8/15

WEIGHT

93 Pounds

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Stephanie Pearce RDCS, RVT

HOSPITAL NAME

Bel Air VH

REFERRING VET

Dr. Stevenson

INVOICE

36568

PRESENTING CLINICAL SIGNS

Recent dx: dka/dm, weight loss. Hx of increased liver enzymes, see UA results. Prior hx of gastritis chronic loose bowels.

Current Medications: Denamarin adv rx'd 10/2021- 1.5 SID, Dermalone for nose lesion 5/2021, Insulin tx started at AEH- Vetsulin- looks like dose is 12 units currently.
Lab Results: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is minimally distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, or masses. There is a small amount of mineralized debris in the dependent portion of the urinary bladder, most consistent with sand or very small stones.

The visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

The left kidney has a normal shape and size (7.98 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (7.91 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.64 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.62 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is large, heterogeneous and hyperechoic. The visible portions of the vasculature and biliary tract appear normal. There is a small hypoechoic nodule visualized in the left side of the liver measuring 1.08 cm x 1.17 cm.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measured 0.34 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The area of the pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Large, hyperechoic, heterogeneous liver with an ill-defined, hypoechoic nodule – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

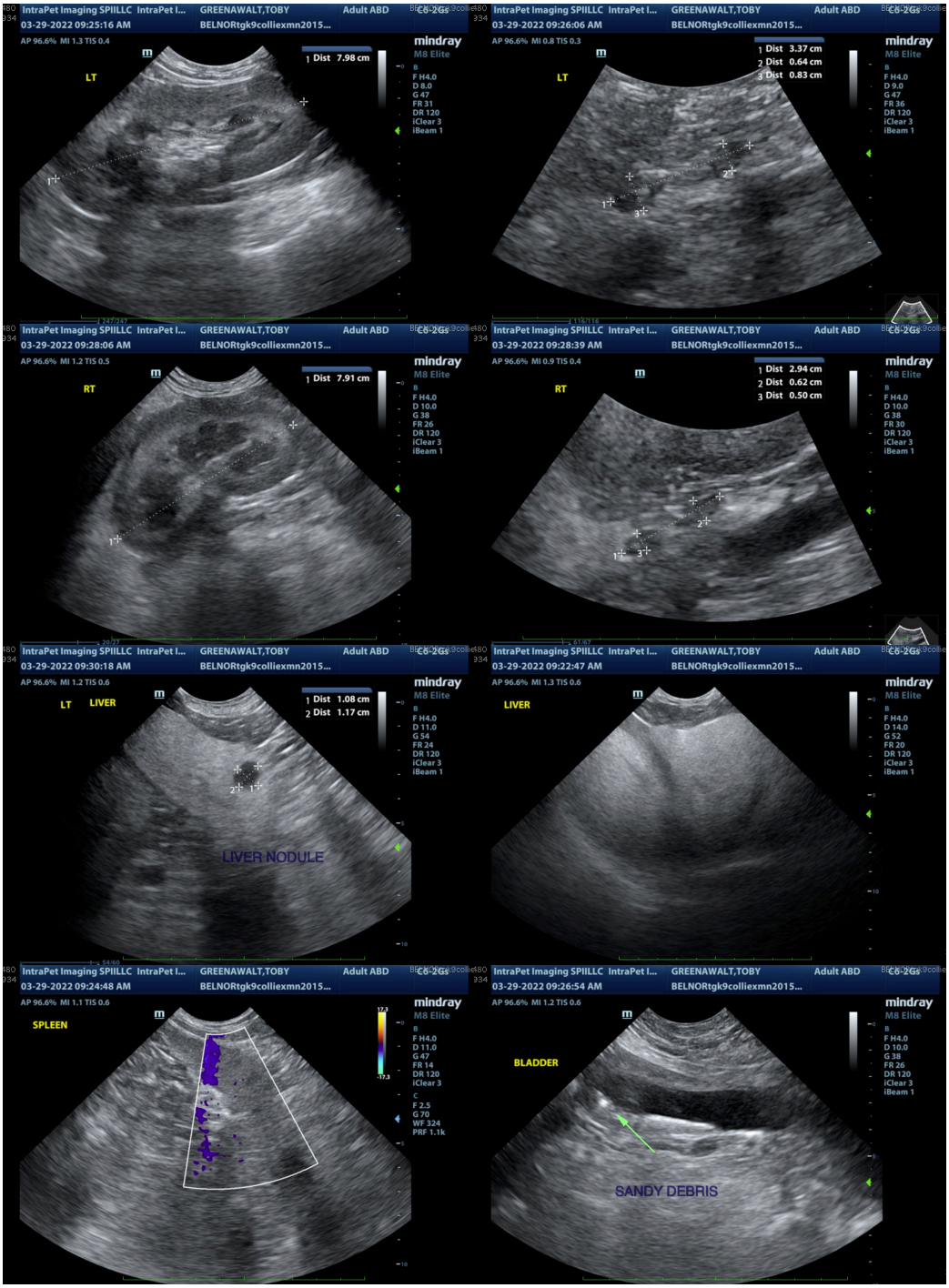
- Moderate gallbladder debris – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

- Small amount of sandy debris in the dependent portion of the urinary bladder – Recommend urinalysis and culture. Correlate with abdominal radiographs.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The changes observed in the liver could be consistent with a severe diabetic hepatopathy. Depending on the nature of the liver enzyme elevation, a liver function test could be considered (pre- and post-prandial bile acids). If there is concern for underlying round cell neoplasia, a fine needle aspirate could be considered. There is no evidence of severe pancreatitis, but occasionally, this can be present without significant ultrasonographic lesions. You could consider a quantitative PLI and a urinalysis and culture. This dog is on a very low dose of insulin for its size. Recommend hospitalization for treatment of the DKA as well as treatment with short-acting insulin to resolve the ketosis and try to get the diabetes under better control.

There is a small hypoechoic lesion within the liver. This trends towards a more benign appearing lesion, but continued monitoring is warranted.


IntraPet Imaging SPIIILLC IntraPet I... GREENAWALT,TOBY Adult ABD
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AP 96.6% MI 1.3 TIS 0.4
LT
1 Dist 7.98 cm
mindray M8 Elite
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2 Dist 0.64 cm
3 Dist 0.83 cm
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RT
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RT
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LT LIVER
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2 Dist 1.17 cm
LIVER NODULE
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LIVER
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SPLEEN
03-29-2022 09:26:54 AM BELNORtgk9colliexmn2015...
AP 96.6% MI 1.2 TIS 0.6
BLADDER
SANDY DEBRIS

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
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