



PATIENT

Jack Biel

SPECIES

Canine

BREED

Maltese Mix

SEX

Neutered Male

AGE

10

WEIGHT

23 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Matt Haghghat

HOSPITAL NAME

Beaches-Fallingbrook
Veterinary Clinic

REFERRING VET

Dr. Matt Haghghat

INVOICE

14821

DATE

9/6/22

PRESENTING CLINICAL SIGNS

Jack is a 10 year old neutered Maltese Mix with the history of diabetes mellitus diagnosed about 10 months ago. He is on 9.5IU Caninsulin. We are suspecting Cushing disease. Recent blood report and UA are as follow:

Abnormal PE/Chem/CBC/UA Results: Glucose 24.3mmol/L ALT 302 AST 66 ALP 9.8 Cholesterol 12.8 U/A: SG 1.068 Glucose +3

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Multiple dependent primarily small cystic calculi were present. Focal small calculus was present in the urinary bladder neck yet no evidence of obstruction to urinary outflow. No evidence of inflammatory or neoplastic urinary bladder changes was noted. The urethra exhibited normal structure and tone to a depth of 2.0 cm.

The area residual prostate was free of overt pathology.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were 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 loss of corticomedullary symmetry and definition expected for the age of the patient. Intermittent small cortical cysts along with focal areas of nonobstructive medullary mineralization were present in both kidneys. Indistinct hyperechoic cortical foci to striations were present in both kidneys. No evidence of pyelectasia was present. The left kidney measured 6.3 cm in length. The right kidney measured 6.3 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.53 cm width at the caudal pole and 0.39 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 0.40 cm width at the caudal pole and 0.43 cm width at the cranial pole. No evidence of adrenomegaly or adrenal tumors was noted.

Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. Probable areas of medial capsule fibrosis were noted, which is incidental. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. No evidence of splenic inflammatory or neoplastic criteria was noted.

Liver/ Gallbladder

The liver exhibited generalized enlargement with rounded yet symmetrical hepatic contour and generalized nonhomogeneous, mildly mixed echogenic hepatic parenchyma. No masses or nodules were noted. The gallbladder was non-distended in size containing primarily anechoic content with



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minor primarily dependent, mildly echogenic sediment to mucus. No evidence of gallbladder or peripheral gallbladder inflammation was noted. The cystic and common bile ducts were normal.

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Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild, nonshadowing ingesta/chyme most consistent with post prandial presentation without signs of ileus, obstruction or foreign material.

BREED

Maltese Mix

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.

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

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Pancreas

The pancreas was normal in size and overall contour with subtle primarily uniform hypoechoic parenchyma with mild pancreatic duct dilation. No evidence of peripancreatic reactive mesentery was noted.

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Free Abdomen

Intermittent mesenteric lymph nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5). An example of the lymph nodes measured 1.3 cm x 0.33 cm. The lymph nodes are not consistent with inflammatory or neoplastic criteria. No free fluid was noted.

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ULTRASONOGRAPHIC FINDINGS

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- Multiple small cystic calculi
- Chronic renal changes exhibiting focal nonobstructive medullary mineral and potential cortical microinfarction, fibrosis, or emerging mineralization
- Normal bilateral adrenal glands
- Hepatomegaly exhibiting nonhomogeneous parenchyma - subjectively benign
- Minor gallbladder debris / mucus
- Mild hypoechoic nonhomogeneous pancreas exhibiting minor pancreatic duct dilation - age-related / patient variant, potential for mild chronic pancreatitis

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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Sonographically, the bilateral adrenal glands were not overt suggestive of Cushing's Syndrome and without evidence of neoplastic criteria. Adrenal workup could be considered if strong clinical suspicion of Cushing's Syndrome, as at times, adrenal glands will measure normally in cases of Cushing's Syndrome.

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Urine C/S on a sterile urine sample is suggested If not recently done, given the glucose urea. Spec cPL could be considered to assess for low-grade pancreatitis. Assuming normal clotting status screening hepatic FNA is warranted. Hepatosupportive medications such as Denamarin may prove beneficial.



PATIENT

This is a suggestive checkoff list when faced with an unregulated diabetic patient:

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UTI

SPECIES

Dietary indiscretion/intolerance
Pancreatitis

Canine

Hyperthyroidism/hypothyroidism
Exogenous steroids (including topical eye meds)

BREED

Cushing's
Acromegaly

Maltese Mix

Owner compliance

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Insulin quality issues

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Underlying Neoplasia

Diffuse liver disease

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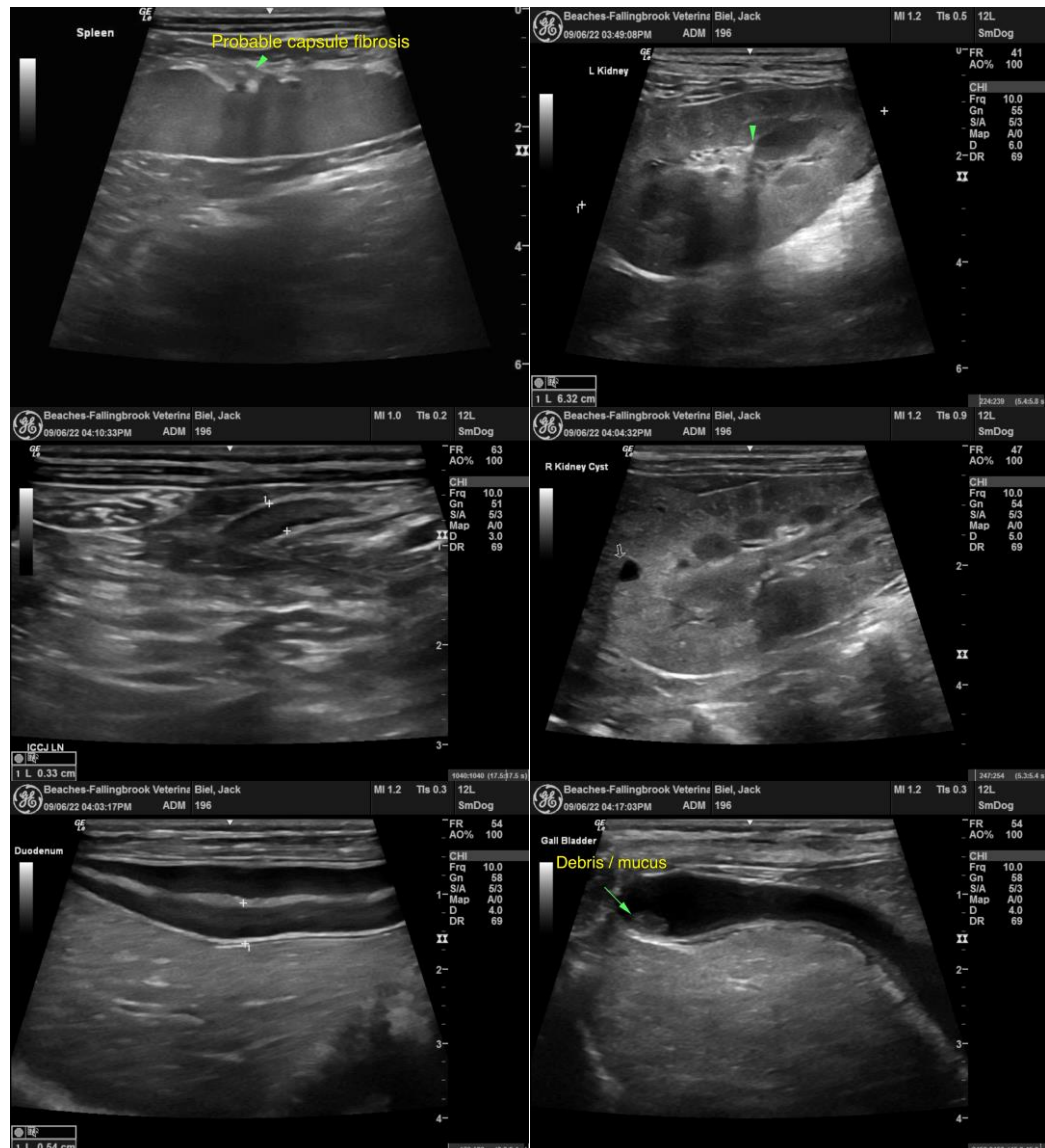
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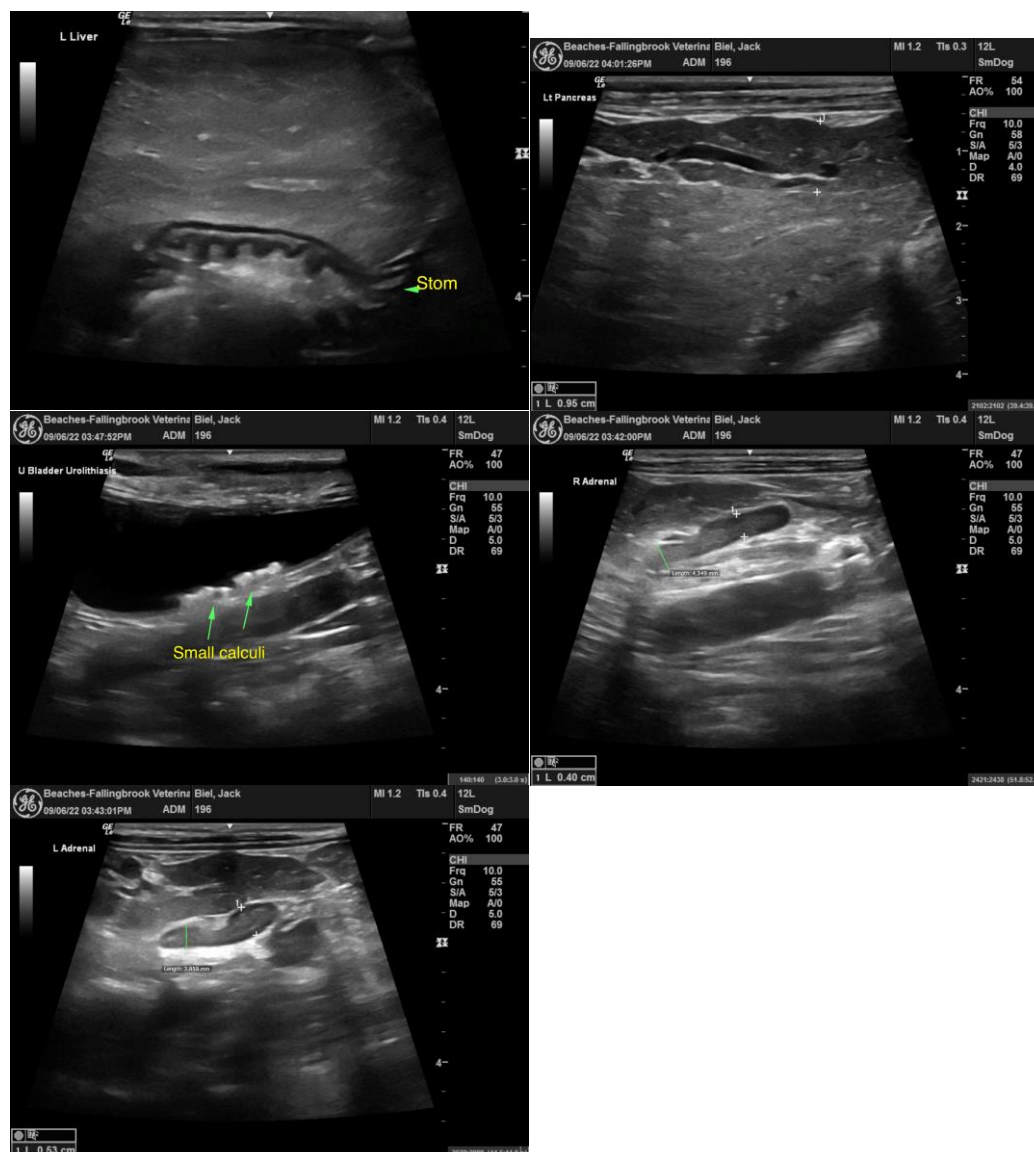
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com