



**PATIENT**

Oliver Thornton

**PRESENTING CLINICAL SIGNS**

Bright and alert pendulous abdomen and thinning hair coat PU PD and polyphagic. Suspect hyperadrenocorticism

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: Moderate elevation of liver enzymes and cholesterol . UA taken via cysto during scan. LDDST pending

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

Shih Tzu Mix

**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 dependent hyperechoic sand/mineral. Concurrent sand/mineral was also present in the proximal to prostatic urethral lumen. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

**SEX**

MI

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 minor loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Bilateral pinpoint medullary mineral was present. The left kidney measured 5.3 cm in length. The right kidney measured 6.1 cm in length.

**AGE**

9

**WEIGHT**

11.8kg

The area of the aortic trifurcation was free of pathology.

The prostate was mildly enlarged in size with intact, symmetrical capsule contour. The margins of the gland were intact and able to be differentiated from the surrounding tissue. The prostatic parenchyma was mildly echogenic to heteroechoic without parenchymal mineralization. The prostate measured 3.2 cm x 1.8 cm.

**INTERPRETED BY**

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

**Adrenal Glands**

Bilateral symmetrical adrenal gland enlargement with uniformly hypoechoic parenchyma was present. The left adrenal gland measured 0.91 cm width at the caudal pole and 0.95 cm width at the cranial pole. The right adrenal gland measured 0.8 cm width at the caudal pole and 0.88 cm width at the cranial pole.

**IMAGING PERFORMED BY**

Dr. Belan

**Spleen**

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. 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, neoplastic, or benign parenchyma changes were not noted.

**HOSPITAL NAME**

Ramsay Animal Clinic

**REFERRING VET**

Dr. Gupta

**Liver/Gallbladder**

The liver presented 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 moderate coarse to mildly non-homogenous 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 primarily anechoic luminal content. The cystic and common bile ducts were normal.

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**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.

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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**

**BREED**

Shih Tzu Mix

The parenchyma of the pancreas was hyperechoic to adjacent omental fat with diffuse parenchyma remodeling. The capsule of the pancreas was mildly asymmetrical in contour without evidence of peripancreatic inflammation. These changes may suggest chronic inflammation, fibrosis, or saponification if previous history of pancreatitis. No overt signs of pancreatic neoplasia.

**SEX**

MI

**Free Abdomen**

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

**AGE**

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**ULTRASONOGRAPHIC FINDINGS**

- Minor dependent urinary bladder and non-obstructive proximal urethra sand/mineral.
- Age related renal changes with pinpoint to minor medullary mineral.
- Benign prostatic hyperplasia.
- Mild bilateral adrenomegaly.
- Benign hepatopathy, unremarkable gallbladder.
- Chronic pancreatitis/fibrosis pattern.

**WEIGHT**

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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DVM, DABVP  
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This patient is suspected to be passing small amounts of mineral from the kidneys into the urinary bladder. Correlation with pending UA as well as C/S +/- UPC if evidence of proteinuria is suggested. Pending LDDST warranted given the clinical signs, hepatopathy and adrenomegaly. No evidence of adrenal neoplastic criteria. Hepatic sampling +/- leptospirosis titers could be considered if Cushing's disease is ruled out. A spec cPL could be considered if clinical signs of chronic pancreatitis arise.

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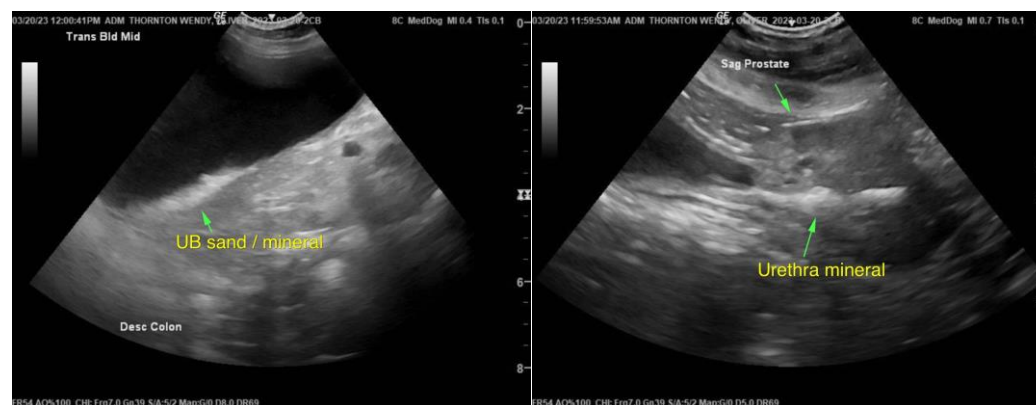
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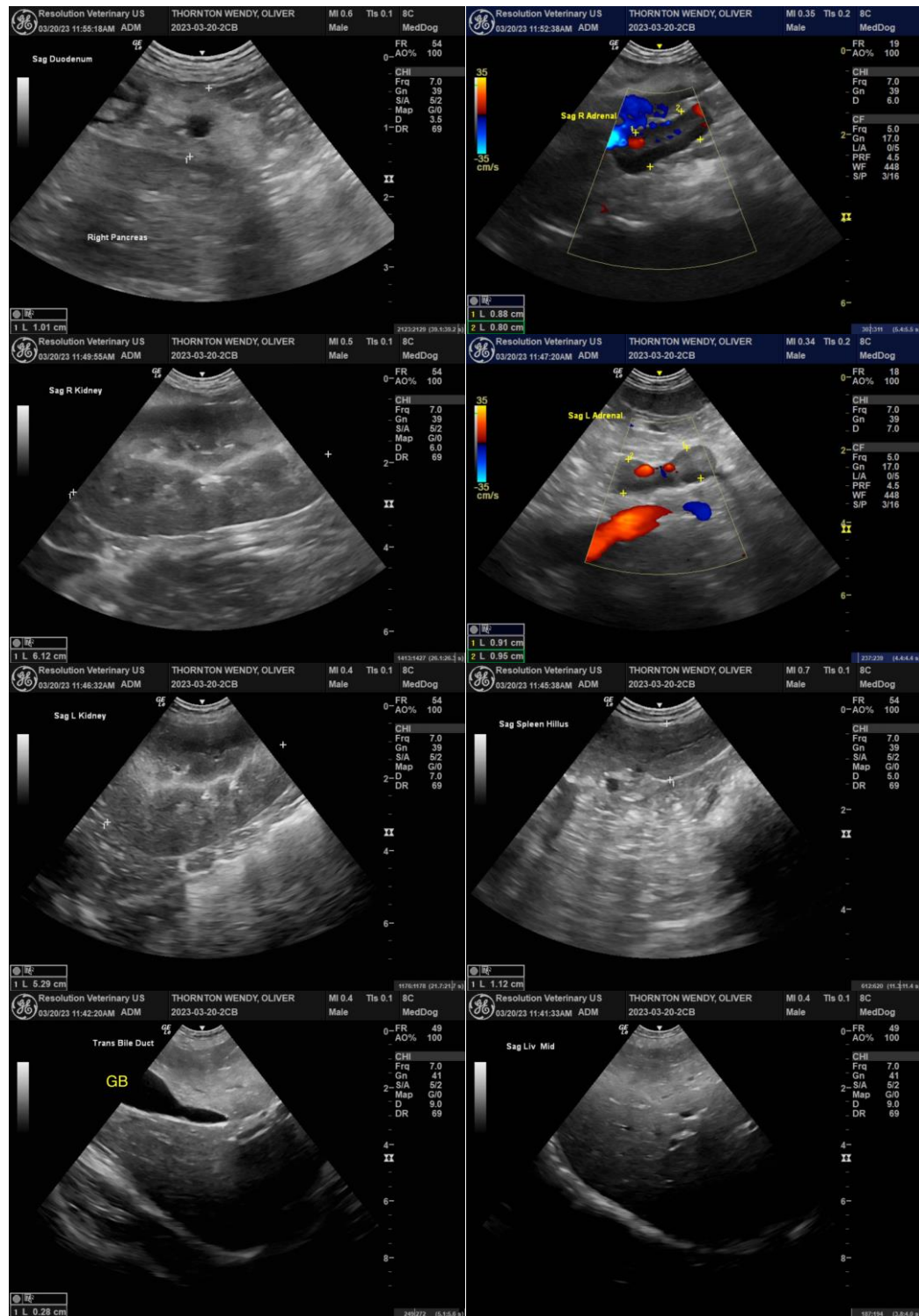
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I



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can be of any further assistance, please contact me.

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