



**PATIENT**

Tiger Kwan

**SPECIES**

Canine

**BREED**

Dachshund

**SEX**

M/N

**AGE**

16.5

**WEIGHT**

6.1 kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Belan

**HOSPITAL NAME**

Calgary Wholistic VC

**REFERRING VET**

Dr. Qi

**INVOICE**

16214

**DATE**

2/16/23

**PRESENTING CLINICAL SIGNS**

Abdominal mass seen on c ray. Lethargic poor appetite intermittent vomiting of bile  
Abnormal PE/Chem/CBC/UA Results: Mild anemia, and azotemia mild elevation of ALP

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm 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.

The residual prostate was free of pathology.

The area of the aortic trifurcation was free of pathology.

Normal renal size with asymmetrical margination were present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. The left kidney measured 4.4 cm in length. The right kidney measured 4.6 cm in length. Pinpoint to focal areas of corticomedullary mineral were noted. Potential for pinpoint areas of cortical fibrosis or microinfarction are possible.

**Adrenal Glands**

The bilateral adrenal glands were enlarged in size exhibiting mild capsule asymmetry and nonhomogeneous parenchyma. The right adrenal gland exhibited more prominent adrenomegaly compared to the left adrenal gland. No overt parenchymal mineralization was noted. The left adrenal gland measured 2.2 cm length x 0.95 cm width at the caudal pole. The right adrenal gland measured 1.7 cm length x 1.3 cm width at the cranial pole and 0.82 cm width at the caudal pole.

**Spleen**

Moderately sized, irregular, nonhomogeneous to nodular splenic mass was noted in the subjective mid to possible caudal spleen measuring 5.0-6.0 cm in diameter. A hyperechoic intra-mass nodule exhibiting distal acoustic shadowing, which may indicate nodular fibrosis, mineralization, or concurrent myelolipoma, was present. Normal splenic vascularity was noted. The spleen not involved with the mass exhibited generalized heterogeneous parenchyma. Concurrent, intermittent intra-mass hyperechoic foci were present.

**Liver/ Gallbladder**

The liver exhibited subjective mild 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. Discrete probable intraparenchymal lipogranulomas or nodular hyperplasia are noted. The gallbladder was non-distended in size containing primarily anechoic content with moderate, primarily dependent to mildly nondependent, nonorganized gallbladder debris. No evidence of



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gallbladder or peripheral gallbladder inflammatory criteria was noted. The cystic and common bile ducts were normal.

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**Gastrointestinal**

The stomach presented intact borderline prominent wall layering. The stomach was empty with mild luminal gas. The ventral gastric body wall width measured 0.42 cm.

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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. The jejunum wall measured 0.30 cm width.

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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 contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

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**Free Abdomen**

No overt lymphadenopathy or evidence of peritoneal effusion was noted.

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- Nonhomogeneous irregular to nodular splenic mass - benign vs. malignant etiologies possible
- Subjective benign low-grade hepatopathy
- Gallbladder debris - not consistent with mucocele criteria
- Moderate chronic renal changes with focal medullary mineral, suspect pinpoint cortical fibrosis / microinfarction
- Bilateral irregular adrenomegaly more prominent right adrenal gland - adenomatous change, hyperplasia, possible emerging primary vs. metastatic adrenal neoplasia, all potentials
- Suspect mild gastritis

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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Screening blood pressure to assess for evidence of hypertension which may allude to malignant adrenal pathology, i.e., pheochromocytoma, is recommended.

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Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered. Three-view chest radiographs and ideally brief sonographic assessment of the heart to assess for or rule out thoracic or cardiac metastasis associated with the splenic mass are recommended.

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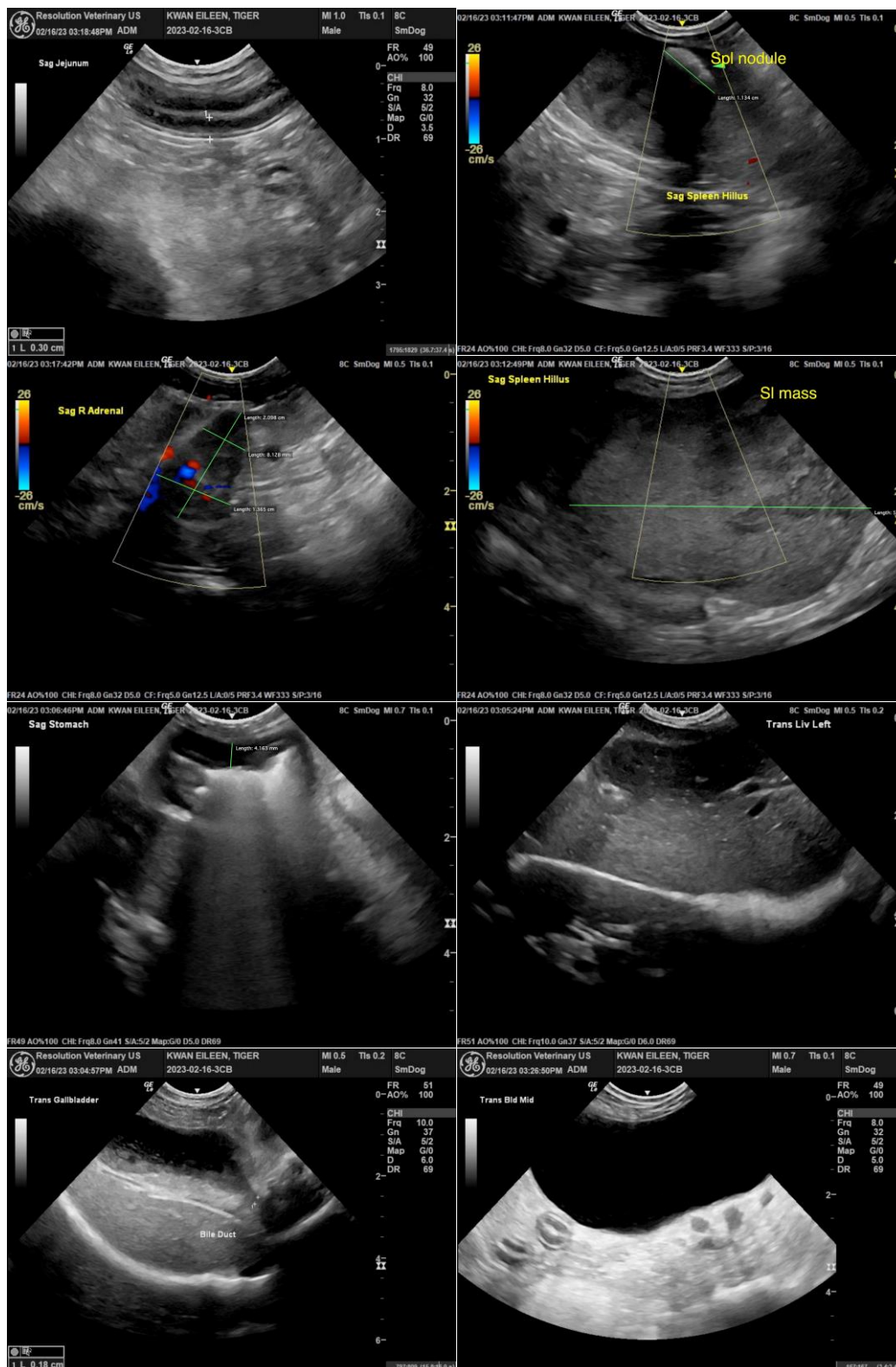
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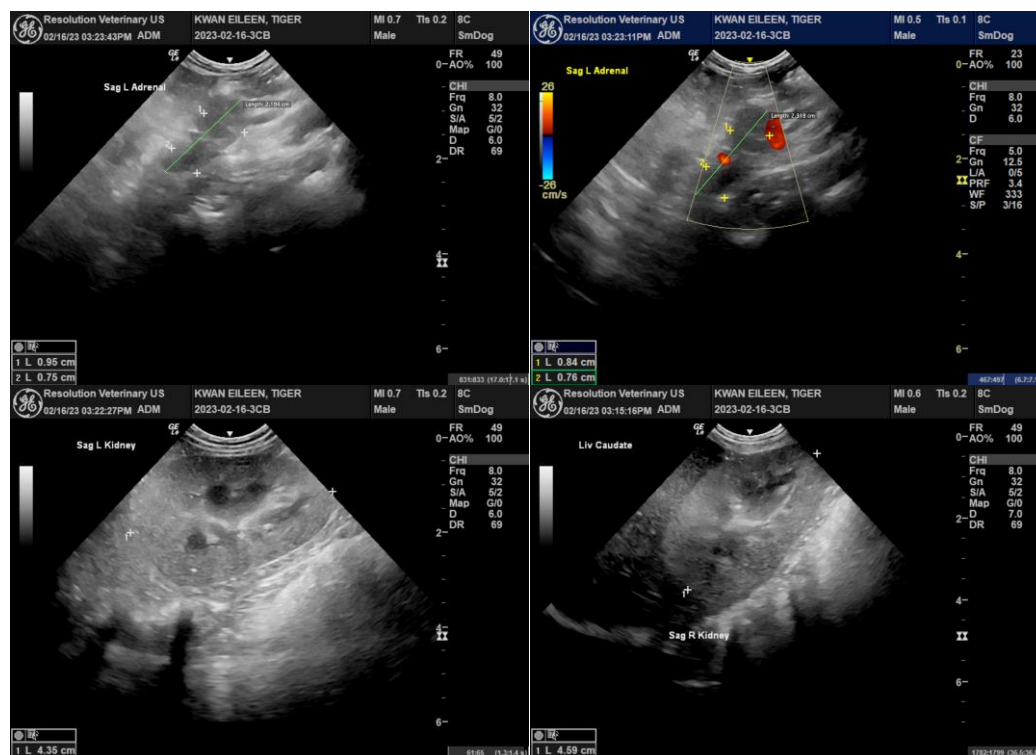
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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