



**PATIENT**

Kayleigh Foth

**SPECIES**

Canine

**BREED**

Scottish Terrier

**SEX**

FS

**AGE**

10

**WEIGHT**

8 kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Belan

**HOSPITAL NAME**

McKnight AH

**REFERRING VET**

Dr. Kim, Dr. Gavin

**INVOICE**

15123

**DATE**

10/6/22

**PRESENTING CLINICAL SIGNS**

Lethargic and anorexic last 2 months weight loss down from 10 to 8 kgs Previous scan Mar 2021 report attached

Abnormal PE/Chem/CBC/UA Results: Severe elevation of liver and kidney enzymes. Mild elevation of cortisol and amylase

**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 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. Pinpoint medullary mineralization was noted. Mild loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. The left kidney measured 5.0 cm in length. The right kidney measured 4.8 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 0.51 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.53 cm width at the caudal pole and 0.53 cm width at the cranial pole. No overt evidence of adrenomegaly or tumors was noted.

**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.

**Liver/ Gallbladder**

The liver was mildly enlarged with primarily maintained symmetrical capsule contour and normal hepatic parenchyma echogenicity exhibiting moderate coarse echotexture. Evidence of minor parenchymal remodeling was noted. An ill-defined, mixed echogenic nodule was present in the right lateral to caudate liver lobe measuring approximately 2.8 cm in diameter. Concurrent small, well-demarcated, hyperechoic nodules were present in the mid to left liver. The gallbladder was moderate to markedly distended exhibiting overtly normal gallbladder walls. Moderate to marked, nondependent yet nonorganized mildly hyperechoic luminal debris was present with no overt evidence of gallbladder or peripheral gallbladder inflammation.



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***Gastrointestinal***

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The stomach presented intact yet borderline prominent wall layering. The lumen of the stomach was empty with mild luminal gas.

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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. Intermittent minor duodenojejunal mucosal speckling was present.

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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 peritoneal effusion was present.

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**ULTRASONOGRAPHIC FINDINGS**

- Hepatopathy exhibiting nonhomogeneous parenchyma including variably echogenic nonspecific intraparenchymal nodules - chronic breed-associated vacuolar hepatopathy, inflammatory / immune-mediated disease, nodular hyperplasia, lipogranulomas, fibrosis, hematopoiesis, infiltrative neoplasia or other hepatopathy possible
- Distended gallbladder containing moderate to marked, nondependent yet nonorganized, luminal debris
- Heterogeneous pancreas - age / patient variant with benign remodeling, potential for low-grade to chronic pancreatitis possible
- Subjective gastroenteritis pattern with mildly prominent yet intact gastric walls
- Bilateral nonspecific chronic renal changes with pinpoint medullary mineral

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Ultrasound-guided FNA hepatic cytology specifically in the area of the ill-defined right lateral to caudate lobe nodule for further clarification could be considered.

The gallbladder did not exhibit typical or classic mucocele presentation, yet potential for very early gallbladder mucocele without overt evidence of gallbladder or peripheral gallbladder inflammation could be possible. No overt evidence of post hepatic obstructive criteria. A spec cPL is suggested.

A GI panel to include PLI/TLI/Cobalamin/Folate as well as three view chest radiographs and neurological / musculoskeletal examination are recommended to assess for or rule out occult disease which may cause weight loss.

Subjectively the bilateral kidneys did not appear to be end-stage, yet renal prognosis is likely based on CKD therapy and as-needed fluid support. Further renal staging to include urine C/S and protein:creatinine ratio on sterile urine sample may be considered.



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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.

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