



PATIENT

Simon Dahlston

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Neutered male

AGE

5 years

WEIGHT

9.7 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr Griffin

HOSPITAL NAME

Northside VC

REFERRING VET

Dr. Griffin

INVOICE

94802

DATE

12/21/21

PRESENTING CLINICAL SIGNS

Chronic inappropriate urination for 18 months. Has been on Z/D diet over 1 yr On Methimazole 2.5 mg bid transdermal

Abnormal PE/Chem/CBC/UA Results: PE: WNL CBC/CHEM: WNL BP 120/100, SDMA increased at 40, 50 and 80 over the past year T4: 3.9 on 11/4/2021 U/A: USG >1.050, protein negative, bacteria negative, pH 7.0 Urine protein creatine ratio: wnl

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The pelvic urethra was imaged 2.0 cm beyond the cystourethral junction. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The kidneys measured 3.0 cm each.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The adrenal glands measured 0.4 cm.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

Liver

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with



PATIENT	primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.
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SPECIES	Gastrointestinal
Feline	The gastrointestinal presentation revealed mild uniform prominence of the gastric mucosa as well as areas of "ropey" small intestinal wall. The muscularis layer was hypertrophied inverting the normal ratio (1:3). The intestinal submucosa was slightly irregular, thickened and hyperechoic suggestive of low grade, chronic inflammation. No evidence of obstruction was present. Chronic inflammatory bowel disease is probable with a low possibility of an early neoplastic event such as lymphoma or, less likely, dry form FIP can at times be found on biopsy of these presentations. Full thickness tissue biopsies via open laparotomy, ideally guided by intraoperative ultrasound in order to obtain the most representative mural sample, would be necessary to rule more significant disease than IBD.
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AGE	Pancreas
5 years	The base and limbs of the pancreas were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.
WEIGHT	
9.7 lbs	
INTERPRETED BY	ULTRASONOGRAPHIC FINDINGS
Eric Lindquist, DMV DABVP, Cert. IVUSS	Diffuse intestinal thickening. Structurally unremarkable kidneys. Inflammatory bowel with idiopathic muscularis hypertrophy.
IMAGING PERFORMED BY	INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS
Dr Griffin	There was no overt evidence of neoplasia noted. However, SDMA has been associated with potential lymphoma in cats. Ideally full thickness gastrointestinal and renal biopsies would be performed from a surgical standpoint. However, structurally the kidneys appear unremarkable, but the GI tract appears thickened. Underlying dry form FIP or emerging round cell neoplasia is all possible, yet structurally appears stable at this time.
HOSPITAL NAME	
Northside VC	
REFERRING VET	SDMA & LSA reference
Dr. Griffin	Lymphoma and Symmetric Dimethylarginine Concentration in Dogs: A Preliminary Study Author(s): Anthony Abrams-Ogg ¹ ; Bronwyn Rutland ² ; Phillippe Levis ² ; Vicky Sabine ³ ; Allison Majeed ³ ; Dorothee Bienzle ⁴ ; Alex Zur Linden ³ ; Danielle Richardson ⁵ ; Anthony Mutsaers ⁶ ; Paul Woods ³ Address (URL): https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5598894/
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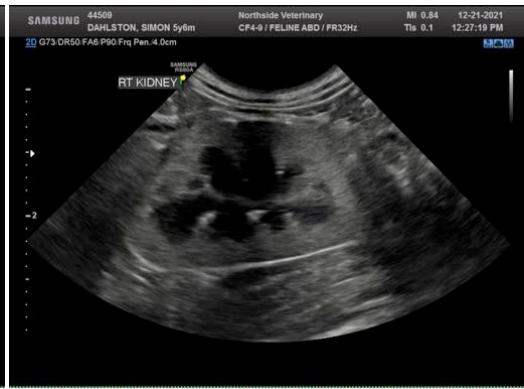
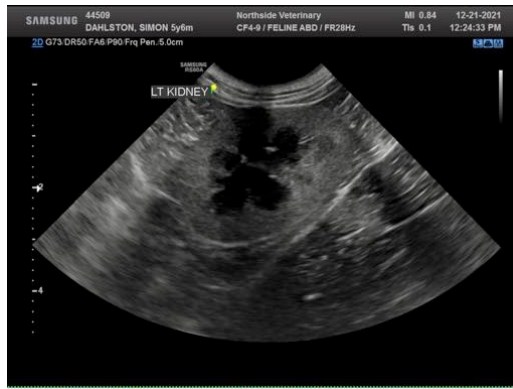
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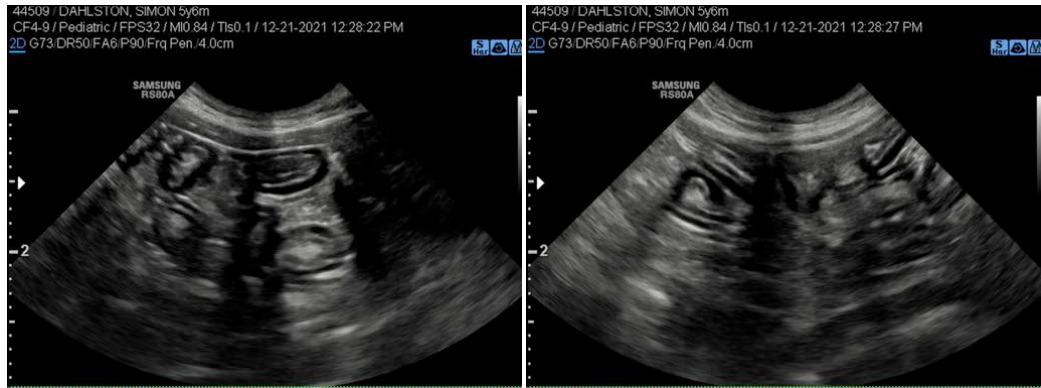
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com