



PATIENT

Lilly Rose Scholl

SPECIES

Canine

BREED

Miniature Schnauzer

SEX

Spayed female

AGE

12 years

WEIGHT

10.4 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Adrienne Waffle

HOSPITAL NAME

Torch Lake VC

REFERRING VET

Dr. Patenburg

INVOICE

42818

DATE

2/15/23

PRESENTING CLINICAL SIGNS

History: hypoalbuminemia
TP - is 4.3. Albumin 1.8

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. 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 largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 3.42 cm and the left kidney measured 4.29 cm.

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 left adrenal gland measured 0.38 cm at the cranial pole and 0.3 cm at the caudal pole. The right adrenal gland measured 0.31 cm at the cranial pole and 0.24 cm at the caudal pole.

Spleen

The **spleen** was slightly heterogenous with slight scalloping contour.

Liver

The **liver** revealed a uniform vacuolar hepatopathy pattern with coarse architecture and occasional, non-disruptive hypoechoic nodular change. The hepatic veins were not dilated. The gallbladder presented acceptably thin walls with primarily anechoic content. Pleural effusion was noted through the diaphragm.

Gastrointestinal

The **gastrointestinal tract** revealed diffuse, hyperechoic fogging or overlay throughout the small intestine as well as areas of mucosal striations and speckling. This striation + fogging effect appeared to exclusively affect the mucosal layer with the submucosa, muscularis and serosa left in-tact. Reactive mesentery was present associated with the serosa indicative of active inflammation. This is most



PATIENT	consistent with protein losing enteropathy/lymphangectasia. Full thickness biopsies or endoscopy guided biopsies would be ideal to confirm. No obstructive disease or obvious suspicion of neoplasia.
Lilly Rose Scholl	
SPECIES	<i>Pancreas</i>
Canine	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.
BREED	<i>Free Abdomen</i>
Miniature Schnauzer	Free fluid was noted in the abdomen. Enhanced mesentery was noted throughout the midabdomen.
SEX	
Spayed female	
AGE	ULTRASONOGRAPHIC FINDINGS
12 years	Mucosal fogging and ascites with pleural effusion.
	Age related renal changes.
	Protein losing enteropathy is likely.
WEIGHT	Mild irregular spleen and liver.
10.4 lbs	
INTERPRETED BY	<u>INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS</u>
Eric Lindquist, DMV DABVP, Cert. IVUSS	The albumin was reported to be 1.8, if this is at the time of the sonogram then other causes of ascites such as lymphatic obstruction. However, if the albumin level is less than 1.5 at the time of the sonogram then the free fluid in the abdomen and chest would be justified by poor oncotic pressure. FNA of the spleen and liver is warranted to assess for lymphoma. The Prednisone therapy may be suppressing a more significant presentation such as lymphoma. However, treatment for protein losing enteropathy is warranted.
IMAGING PERFORMED BY	Part or all of this protocol may be considered based on your clinical impression of the patient:
Adrienne Waffle	OBJECTIVE: keep albumin levels > 2 g/dl, avoid thromboembolism and cavitory effusions, monitor concurrent PLN (Wheaton Terrier PLE/PLN) and liver disease:
HOSPITAL NAME	Plasma 10 mL / kilogram IV over 4 hours
Torch Lake VC	Or Human albumin 2 ml/kg/h over 10 hours. Total daily volume 20.l/kg/day
REFERRING VET	And Colloids/Hetastarch
Dr. Patenburg	10 to 20 mL per kilogram per day and dogs
	10 to 15 mL per kilogram per day cats
	(Can bolus first 1/3 of dose over 15 minutes)
	& maintain on LRS maintenance otherwise.
INVOICE	Metronidazole (10-20 mg/kg po bid)
42818	Famotidine 1 mg/kg lv 1m po dc Sid /bid
	Sucralfate 0.5-1 g po tid dogs, 0.5 g bid cats in slurry Or Misoprostol 1-5 ug/kg po tid
DATE	Diet: Highly digestible high quality protein, low fiber, low fat diet (< 15% of dry matter). Hydrolyzed protein or novel protein. Purina HA or Royal Canine HP or similar.
2/15/23	



PATIENT

Lilly Rose Scholl

Prednisone or prednisolone 2 mg/kg bid x 3-5 days then 2 mg/kg sid. **Chlorambucil** in refractive severe IBD/alimentary lymphoma cases (monitor cbc for rare bone marrow suppression) 4 mg/m² Q 24-48 hours.

SPECIES

Canine

Cobalamine (B12) 250-1500 ug/dog weekly x 6 weeks.

Calcium supplementation if necessary.

Aspirin 0.5-1 mg/kg/day or **Clopidrel** (Plavix) 1-5 mg/kg/day.

BREED

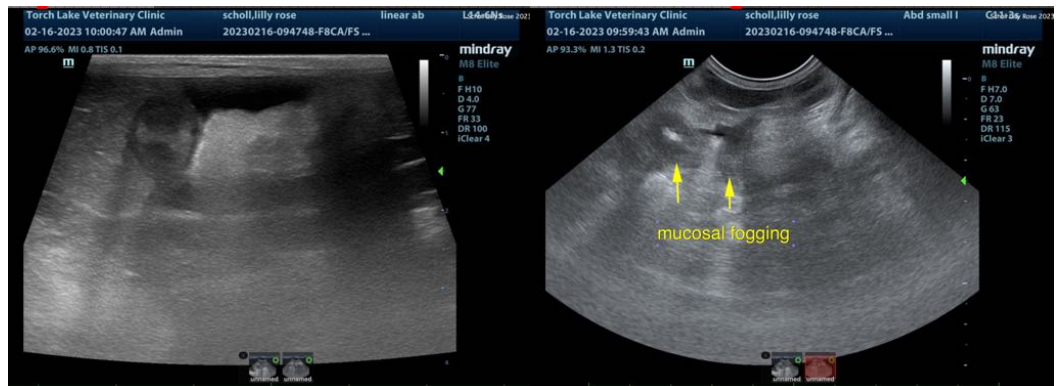
Miniature Schnauzer

SEX

Spayed female

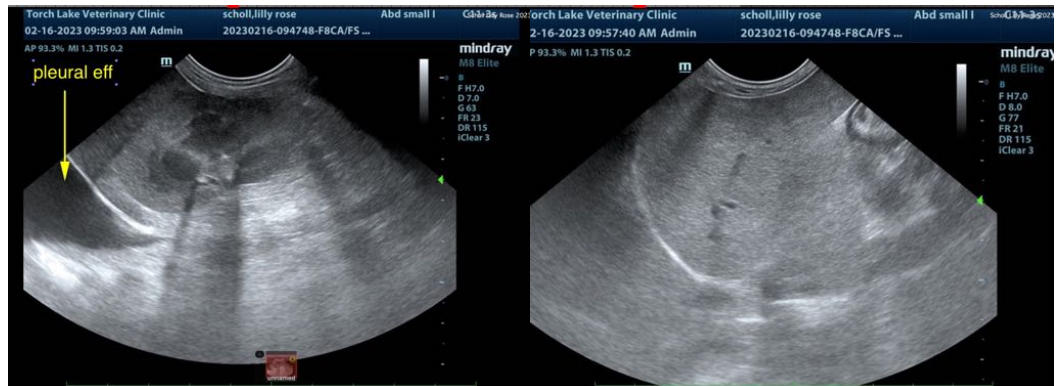
AGE

12 years



WEIGHT

10.4 lbs



INTERPRETED BY

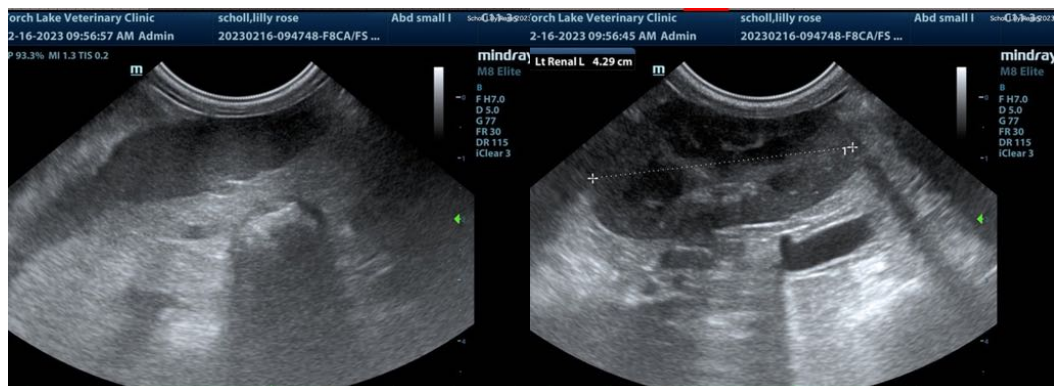
Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Adrienne Waffle

HOSPITAL NAME

Torch Lake VC



REFERRING VET

Dr. Patenburg

INVOICE

42818

DATE

2/15/23



PATIENT

Lilly Rose Scholl

SPECIES

Canine

BREED

Miniature Schnauzer

SEX

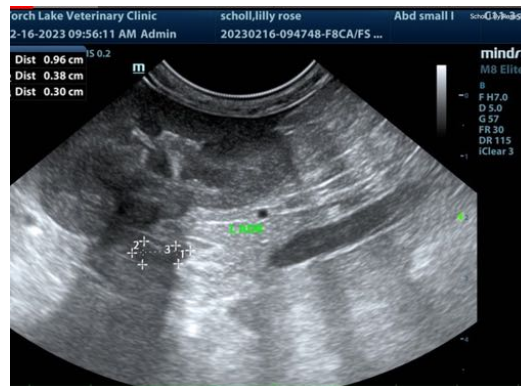
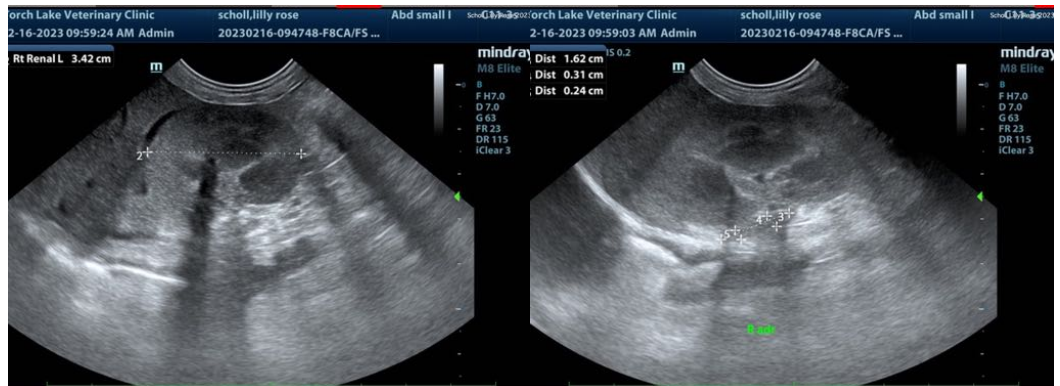
Spayed female

AGE

12 years

WEIGHT

10.4 lbs



INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Adrienne Waffle

HOSPITAL NAME

Torch Lake VC

REFERRING VET

Dr. Patenburg

INVOICE

42818

DATE

2/15/23

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.

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