



**PATIENT**

Emme Rosina

**SPECIES**

Canine

**BREED**

Karelian Bear Dog

**SEX**

Spayed female

**AGE**

12 years

**WEIGHT**

50.1 lbs

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Branchville Country  
Vet

**REFERRING VET**

Dr. Talbot Valerio

**INVOICE**

47776

**DATE**

6/15/23

**PRESENTING CLINICAL SIGNS**

Kidney disease, PU/PD. Current meds: Carprofen, Tramadol, Gabapentin, Aminavast, Proin (+/-).  
Abnormal PE/Chem/CBC/JA Results: ALKP 817; BUN 40; Creat 2.0; SDMA 14.6; K+ 5.7; Trig 930;  
PSL 337; USG 1.020; Prot +++300; PH 5;

**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. Apical urachal remnant noted.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The kidneys revealed polycystic cortices with moderate degenerative changes and remodeling. Medullary structure differed distinctly from the cortex. The capsules were acceptably uniform without significant irregularities. Pyelectasia was noted in both kidneys. The largest cyst in the left kidney measured 2.0 cm with echogenic debris. The left kidney measured 6.4 cm. The right kidney measured 7.54 cm. Blood flow to the kidneys appeared to be subnormal. Areas of corticomedullary, non-obstructive nephrolithiasis is also noted in both kidneys.

**Adrenal Glands**

The right adrenal gland was uniform and measured 2.5 x 0.5 cm. The left adrenal gland was slightly swollen at the cranial pole measuring 0.97 cm and the caudal pole measured 0.5 cm and 2.73 cm in length. Heterogenous, nodular change was noted in the cranial pole of the left adrenal gland.

**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** was uniformly swollen. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia. An occasional hypoechoic nodule was noted in the liver and measured up to 1.3 cm. The gallbladder was mildly over distended with suspended and dependent debris, yet not to the level of emerging mucocele, yet sludge appears to be mildly excessive. No adjunctive inflammation was noted.



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**Gastrointestinal**

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Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

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**Pancreas**

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

**ULTRASONOGRAPHIC FINDINGS**

Moderate to near end stage degenerative disease with polycystic cortical changes and pyelectasia.

Slightly irregular left adrenal gland. Hyperplasia is likely, adenoma, adenocarcinoma and pheochromocytoma are technically possible.

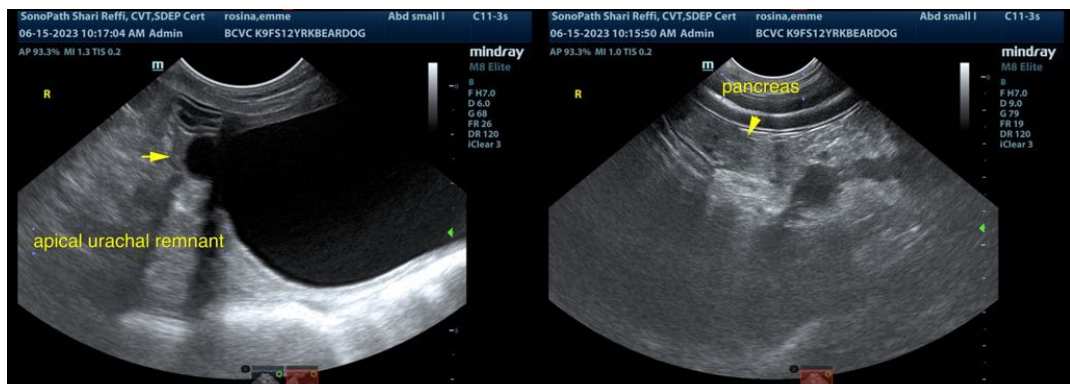
Benign hepatopathy with occasional nodule and cyst, not likely pathological.

Minor excessive gallbladder debris without mucocele formation.

Apical urachal remnant and measured approximately 0.8 cm.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Blood pressure measurements are warranted in this patient. Full urine culture and sensitivity, coverage for any evidence of UTI. Ursodiol therapy can be considered. The urinary bladder is largely normal, yet urachal remnant is noted. 72-hour IV fluid protocol and treatment for acute on chronic renal disease is warranted. NSAID treatment may be contraindicated in this patient. The prognosis long term is guarded.





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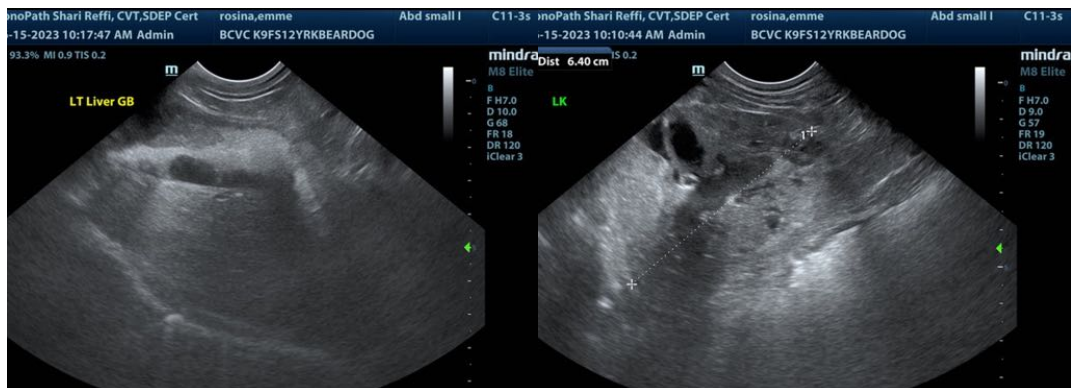
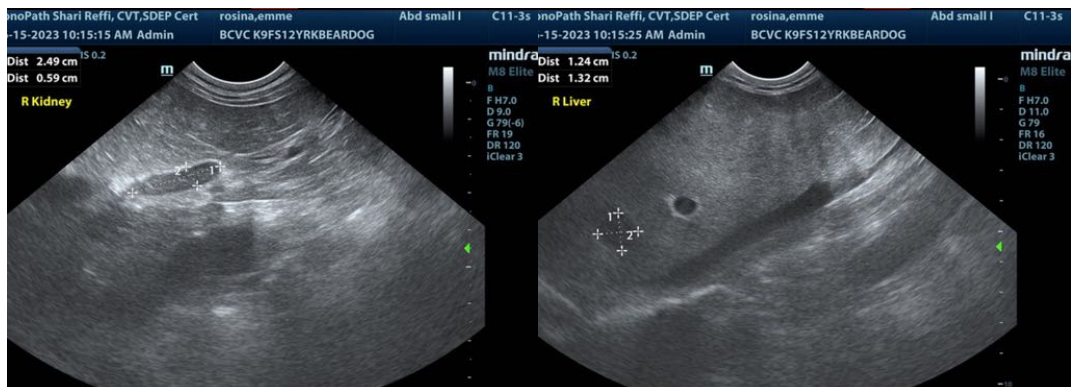
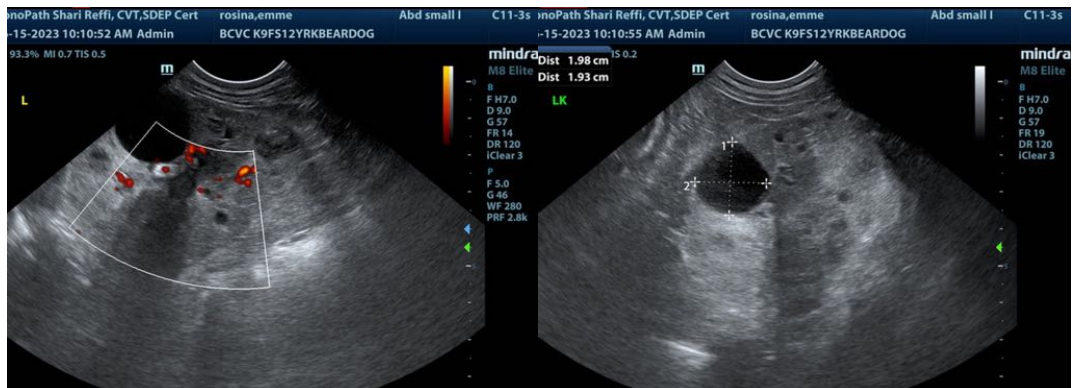
Dr. Talbot Valerio

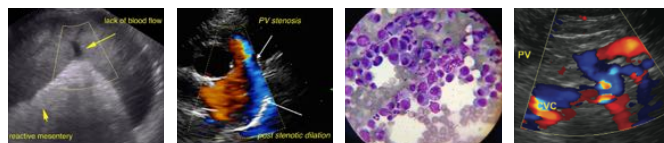
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

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