



**PATIENT PRESENTING CLINICAL SIGNS**

Dakota Loween

History: Recently seen in March for Urinary symptoms. Did have mild UTI, started antibiotics and his condition improved. Became lethargic, not eating well, licking at penis on prior to visit on 4/13/23. Noted liver change a brief scan of abdomen, recommended US and FNA.

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: 4/13/23 CHEM - ALP 484, ALB 4. CBC - NSF PT and PTT - normal UA - unremarkable 3/23/23 Chem -ALP 691, BUN 41. UA - occasional bacteria, mild proteinuria, WBC 6/hpf. 74

**BREED**

Brittany Spaniel

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**SEX**

Neutered male

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 and appeared normal. 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.

**AGE**

9 years

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.

**WEIGHT**

64.4 lbs

The capsules were acceptably uniform without significant irregularities. The right kidney measured 6.06 cm. The left kidney measured 5.72 cm.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**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 2.86 x 0.63 cm at the cranial pole and 0.84 cm at the caudal pole. The right adrenal gland measured 0.8 cm.

**IMAGING PERFORMED BY**

Dr. Krell

**HOSPITAL NAME**

Pws and Prairie AC

**Spleen**

The **spleen** was largely smooth with subtle heterogeneous parenchymal changes while maintaining normal echogenic relationship to the liver and kidney. These changes are consistent with normal age-related alteration. The capsule was smooth without noticeable impingement from within the spleen or from pathology in the adjacent abdomen. The splenic vasculature demonstrated normal volume without signs of congestion or significant contraction. No evidence of active acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

**REFERRING VET**

Dr. Krell

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43913

**Liver**

The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. The liver presented coarse architecture with mildly increased portal markings and

**DATE**

4/20/23



<b>PATIENT</b>	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.
Dakota Loween	
<b>SPECIES</b>	<b><i>Gastrointestinal</i></b>
Canine	There was some residual chyme and gas was noted in the <b>stomach</b> , yet not pathological. This is consistent with end post prandial presentation. Transit of chyme into the small intestine was normal. Curvilinear patterns were maintained throughout the GI tract. No evidence of pathology. 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.
<b>BREED</b>	
Brittany Spaniel	
<b>SEX</b>	<b><i>Pancreas</i></b>
Neutered male	The base and limbs of the <b>pancreas</b> 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.
<b>AGE</b>	
9 years	
<b>WEIGHT</b>	<b><i>Free Abdomen</i></b>
64.4 lbs	A large amount of abdominal fat was noted in this patient.
<b>INTERPRETED BY</b>	<b>ULTRASONOGRAPHIC FINDINGS</b>
Eric Lindquist, DMV DABVP, Cert. IVUSS	Subjectively benign hepatic remodeling. Benign hepatopathy. Age related splenic changes. Unremarkable abdomen.
<b>IMAGING PERFORMED BY</b>	<b><u>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</u></b>
Dr. Krell	Ultrasound-guided FNA of the liver can be considered in this patient for further definition and bile acid profile. However, the changes subjectively appear to be benign. Ultrasound-guided FNA of the spleen was performed without complication. Structurally the urinary tract appears unremarkable. However, the following may prove effective regarding the recurrent UTI.
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Pws and Prairie AC	
<b>REFERRING VET</b>	<b>Canine Chronic UTI Protocol</b>
Dr. Krell	I recommend <b>Enrofloxacin</b> (5-10 mg/kg SID PO) (In patients > 1 year of age) in late pm after urination to maximize urinary concentrations overnight. This assumes that culture supports this use. Repeat <b>culture</b> at 3-4 weeks and continue treatment at least 7-10 days post negative urinary sediment and negative culture. <i>Note: Negative culture does not necessarily mean lack of UTI.</i> Other favorite antibiotics for chronic UTI include third generation Cefa (Ceftiafur or similar s.i.d. injectable) or Clavamox. If suspicion of occult urinary incontinence is present then <b>phenylpropanolamine (PPA)</b> (1-2 mg/kg BID) can be employed long term to enhance urethral tone.
<b>INVOICE</b>	
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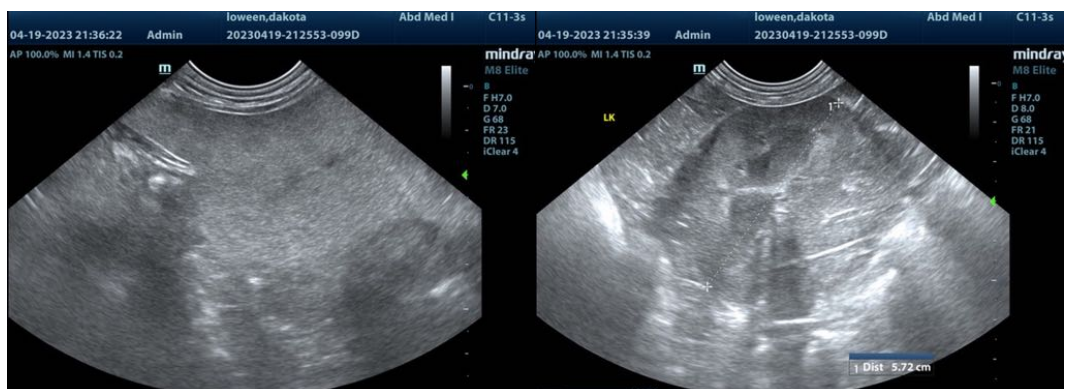
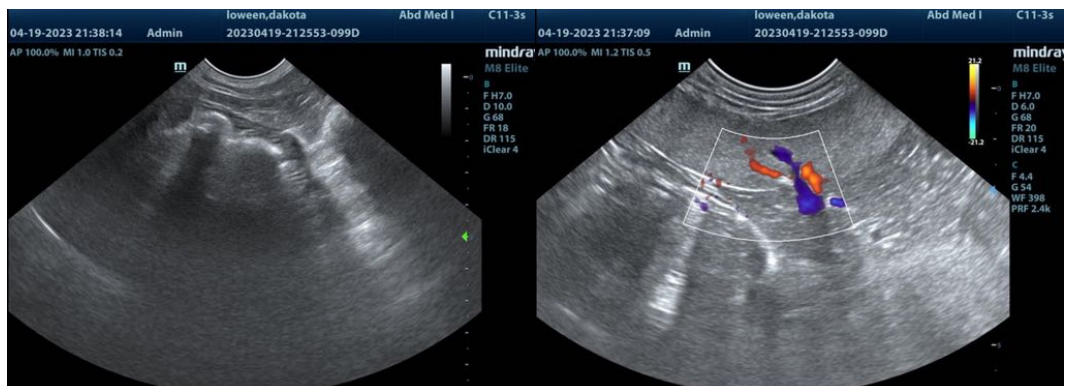
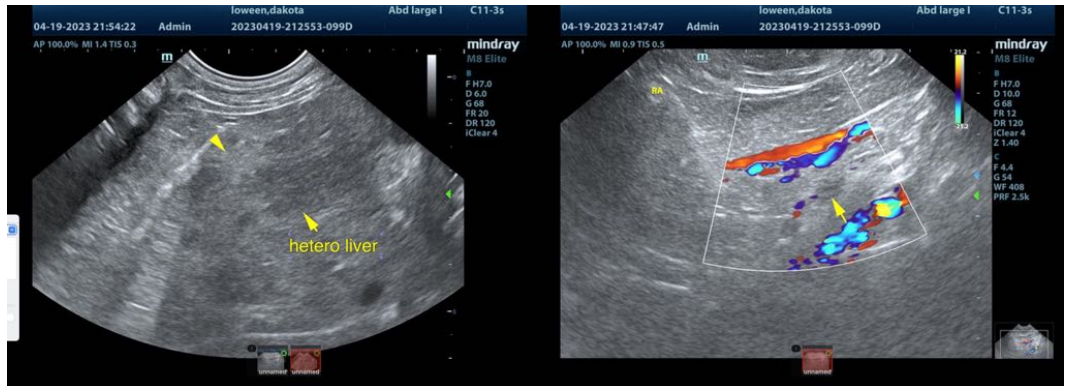
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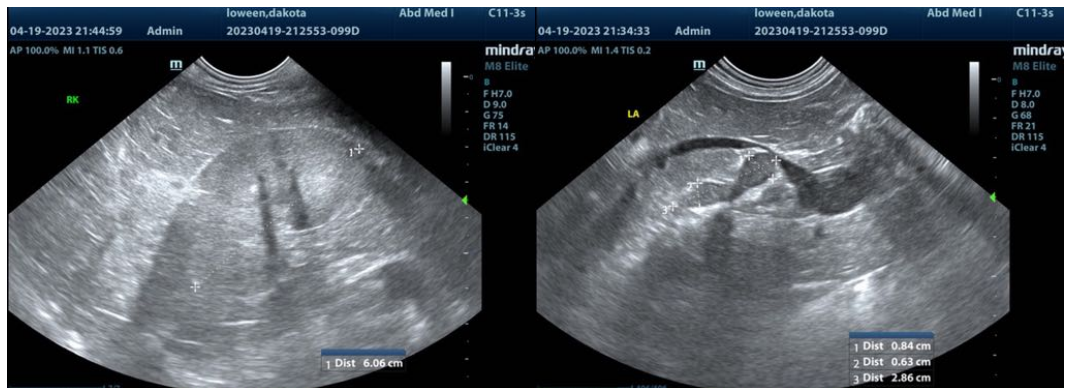
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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