



**PATIENT**

Gigi Dalling

**PRESENTING CLINICAL SIGNS**

Friday July 8th ultrasound revealed huge liver lymph node!, patient has improved on antibiotics and IV flush but not eating consistently, rechecking lymph node which looks smaller to my untrained eye  
Abnormal PE/Chem/CBC/UA Results: azotemia mostly resolved on fluids, BUn 59, Crea 2.1, Phos 4.9

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

Pitbull

**Urinary System**

The **urinary bladder** is well distended. The wall is within normal limits in thickness; it is smooth and regular. A moderate amount of free floating sediment. No abnormalities are noted with the trigone. There is no evidence of sediment, cystoliths, polyps or a mass. A very small amount of effusion is present in the region of the urinary bladder, between the loops of bowel.

**SEX**

El-sf

**Kidneys**

**AGE**

8 years

The **left kidney** measures approximately 7.88 cm. The capsule is smooth. The cortex is hyperechoic, i.e., it is isoechoic to the spleen. Its overall architecture, including the definition of the cortico-medullary junction, is preserved. Mineralizations of the diverticulae and pelvis are present. A very small diverticular nephrolith is suspected based on acoustic shadowing (stable). There is no evidence of pyelectasia. *Blood flow is within normal limits today.* The surrounding mesentery does not appear as hyperechoic, i.e. it is within normal limits.

**WEIGHT**

60 lbs

The **right kidney** measures approximately 6.66 cm (gas at caudal pole affecting ability to measure properly). The capsule is smooth. The cortex is hyperechoic, i.e., it is isoechoic to the liver, which is also hyperechoic compared to normal. Its overall architecture, including the definition of the cortico-medullary junction, is preserved. Mineralizations of the diverticulae and pelvis are present. There is no evidence of nephroliths or pyelectasia. Blood flow is within normal limits. The surrounding mesentery is very mildly hyperechoic.

**INTERPRETED BY**

Lisa Carioto, DVM,  
DVSc, Diplomate  
ACVIM

**Aortic bifurcation/trifurcation** No abnormalities observed.

**IMAGING PERFORMED BY**

Dr. Grau

**Adrenal Glands**

Not examined today.

**HOSPITAL NAME**

Fredon AH

**Spleen**

Subjectively, the spleen is mildly enlarged, however, it is within normal limits in architecture, echotexture, and echogenicity. The capsule is smooth. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified.

**REFERRING VET**

Dr. Grau

**INVOICE**

31547

**Liver**

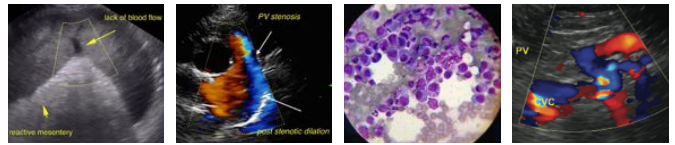
Possible very mild hepatomegaly today vs. deviation of anatomy due to lymph node, i.e. the caudate lobe is noted ventral and slightly medial to the right kidney. Its borders are smooth, but mildly rounded. It is diffusely hyperechoic and heterogeneous with a granular echotexture, in addition to occasional hypoechoic nodules of variable size and pinpoint hyperechoic foci dispersed throughout the

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<b>PATIENT</b>	parenchyma (stable). The medial aspect of the liver (facing the stomach) has a similar appearance to the hepatic LN, i.e. it appears mildly cystic (stable).
Gigi Dalling	
<b>SPECIES</b>	<i>An improvement in the amount of ascites is observed. A scant amount of ascites is present between the LN and liver and between the gallbladder and one of the hepatic lobes.</i>
Canine	The <b>gallbladder</b> wall does not appear as thickened. It is within normal limits in echogenicity. A small amount of echogenic material is present within the GB. There is no evidence of edema surrounding the GB. The portions of the cystic and/or common bile ducts observed are not dilated or tortuous, i.e. there are no signs of an obstruction.
<b>BREED</b>	
Pitbull	
	<b><i>Gastrointestinal</i></b>
<b>SEX</b>	The stomach is visualized today. The definition of the wall layers is preserved. No abnormalities are noted with peristalsis. The mesentery surrounding the stomach and spleen is moderately hyperechoic. Note, the stomach was hardly visible at the time of Gigi's original ultrasound due to the enlarged hepatic lymph node.
El-sf	
<b>AGE</b>	The small intestinal wall thickness, including the duodenum, is within normal limits and the definition of the wall layers is preserved. The mesentery in the left cranial quadrant is not as hyperechoic today. Abnormally dilated loops of bowel are not observed.
8 years	
<b>WEIGHT</b>	The colonic wall is not thickened and mural detail is considered normal.
60 lbs	
	<b><i>Pancreas</i></b>
<b>INTERPRETED BY</b>	The <b>left limb</b> does not appear as hypoechoic, nor is the surrounding mesentery mildly to moderately hyperechoic. Overt signs of neoplasia are not noted.
Lisa Carioto, DVM, DVSc, Diplomate ACVIM	The right limb is still not well visualized. The omentum in the region is not as hyperechoic today.
<b>IMAGING PERFORMED BY</b>	<b>Other</b>
Dr. Grau	<b>Lymph nodes</b>
<b>HOSPITAL NAME</b>	<u>July 11, 2022</u> : Marked improvement (decrease) in the size and echogenicity of the hepatic lymph node. It measures approximately 1.94 cm in diameter x 2.55 cm in length in one view. In another view, where its full length is better evaluated, it measures 2.57 cm in diameter and 4.21 cm in length. The mesentery surrounding the lymph node and stomach is still severely hyperechoic. A scant amount of effusion is noted dorsal to the lymph node.
Fredon AH	
<b>REFERRING VET</b>	<u>Originally</u> : A severely enlarged hepatic lymph node is present dorsal to the liver. It measures 4.5 cm in diameter x 7.6 cm in length. The hilus and blood vessels are very well preserved. Its contours are smooth. It is echogenic, and relatively homogeneous. It is moderately heterogeneous at the pole facing medially (towards the stomach), i.e. it is hypoechoic and has a cystic appearance.
Dr. Grau	
<b>INVOICE</b>	<b>Abdominal effusion</b>
31547	A scant amount of anechoic effusion is observed between the hepatic LN and the liver, and between the gallbladder and one of the hepatic lobes. A very small amount of effusion is present in the region of the urinary bladder, between the loops of bowel.
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<b>PATIENT</b>	<b>ULTRASONOGRAPHIC FINDINGS</b>
Gigi Dalling	<ul style="list-style-type: none"> <li>• <b>Lymph node:</b> marked improvement (decrease) in the size of the hepatic lymph node since the original exam. Lymphadenitis due to an infectious process, i.e. improvement noted with intravenous fluids and antibiotics. An immune-mediated process, such as lymphadenitis secondary to a bacterial disease, must be considered. Neoplasia is considered unlikely.</li> </ul>
<b>SPECIES</b>	
Canine	<ul style="list-style-type: none"> <li>• <b>Liver:</b> Many of the changes observed are likely due to nodular hyperplasia. However, one cannot exclude a reactive hepatopathy, as well as hepatitis. For example, an infectious disease (<i>Bartonella</i>, <i>Mycobacterium</i>, etc.), granulomatous or immune-mediated hepatitis. Neoplasia (lymphoma), is less likely, but cannot be excluded altogether.</li> </ul>
<b>BREED</b>	
Pitbull	<ul style="list-style-type: none"> <li>• <b>Gallbladder:</b> Mild cholecystitis was most likely present due to the mild improvement with the administration of antibiotics since the 8<sup>th</sup>.</li> </ul>
<b>SEX</b>	
El-sf	<ul style="list-style-type: none"> <li>• <b>Kidneys:</b> Changes are most consistent with <i>age related degeneration</i>. Renal blood flow is within normal limits bilaterally. Glomerulonephritis is still possible. Pyelonephritis is less likely, but cannot be excluded despite the absence of classical sonographic changes.</li> </ul>
<b>AGE</b>	
8 years	<ul style="list-style-type: none"> <li>• <b>Pancreas:</b> The pancreas does not appear as hypoechoic today and was most likely “reactive” on Friday.</li> </ul>
<b>WEIGHT</b>	
60 lbs	<ul style="list-style-type: none"> <li>• <b>Ascites:</b> Marked improvement.</li> <li>• <b>Gastrointestinal tract:</b> No obvious abnormalities are observed with the stomach. Gigi’s hyporexia may now be due to nausea associated with administration of antimicrobials, discomfort, and underlying inflammation, general malaise.</li> </ul>
<b>INTERPRETED BY</b>	
Lisa Carioto, DVM, DVSc, Diplomate ACVIM	<ul style="list-style-type: none"> <li>• <b>Urinary bladder:</b> The sediment in the lumen of the urinary bladder is most likely clinically insignificant. Although pyelonephritis still cannot be excluded conclusively without a urine culture, it is considered less likely.</li> </ul>
<b>IMAGING PERFORMED BY</b>	
Dr. Grau	
<b>HOSPITAL NAME</b>	
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	<p><b><u>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</u></b></p> <p>The following are suggested/recommended</p> <p>Ideally, fine needle aspirates of the lymph node and liver to obtain a definitive diagnosis to guide treatment.</p> <p>A coagulation profile is recommended. If this is not possible, the risks should be discussed with the client and a dose of vitamin K (0.5 mg/kg SQ <i>at least</i> 30 minutes prior to the procedure) should be administered.</p> <p><b>Analgesia</b> (gabapentin, methadone)</p> <p>Anti-emetics (ondansetron, if others have not been successful)</p> <p>Can wait for cytology results, but may require PCR testing for vector borne disease, <i>Leptospira</i> spp., <i>Bartonella</i> spp., <i>Mycobacterium</i> spp., etc.</p> <p>Arterial blood pressure, if not already performed</p>



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Although not ideal, if further diagnostics are not pursued, and appetite does not improve with analgesics and an appetite stimulant, one could consider administration of a few days' worth of steroids at an anti-inflammatory dose (prednisolone at 0.5 mg/kg/day) for 3 days, then 0.25 mg/kg/day for 3 days, then every other day for 3 days.

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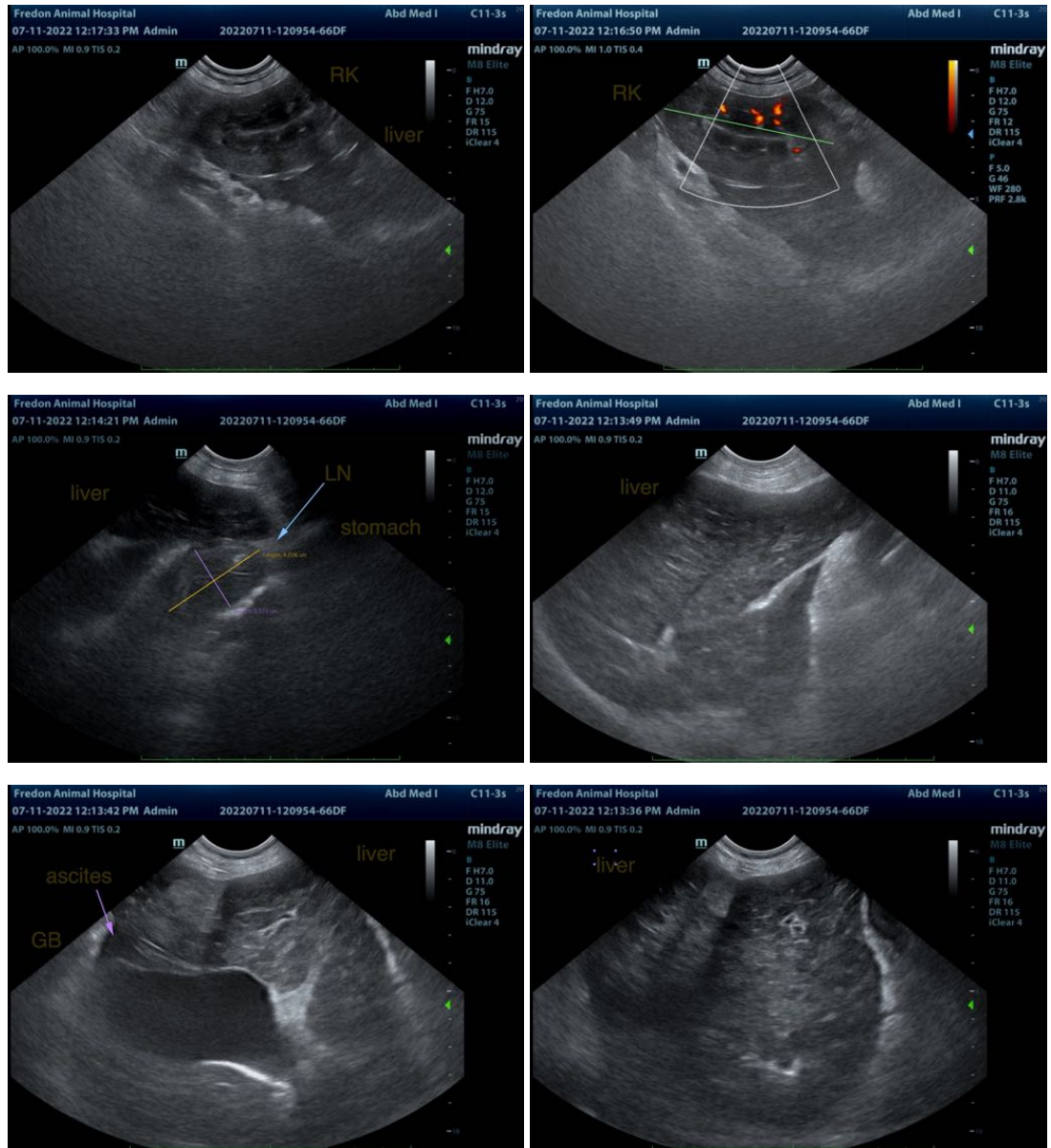
Dr. Grau

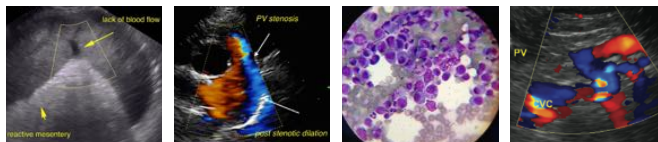
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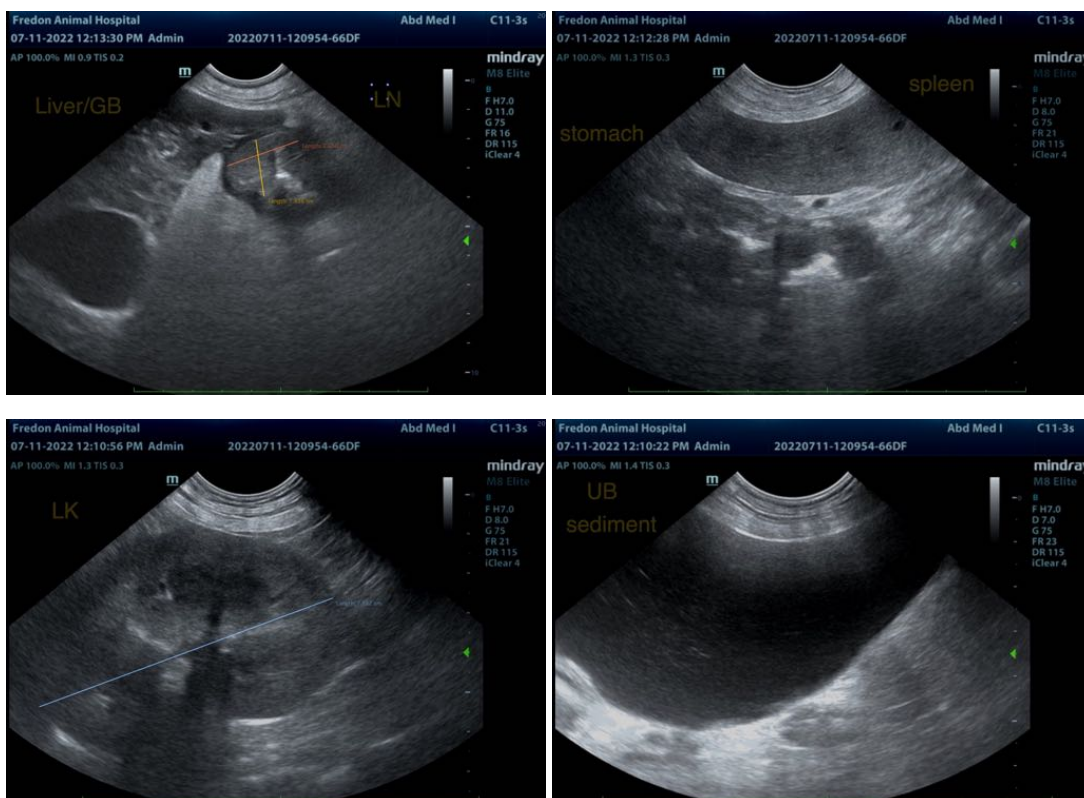
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Lisa Carioto, DVM, DVSc, Diplomate ACVIM

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