



**PATIENT PRESENTING CLINICAL SIGNS**

Loki Jerant History: 4 month duration weight loss, decreased appetite  
Medication: Denamarin

**SPECIES**  
Unremarkable CBC/Chemistry Panel, ALT 371, AST 104, Albumin 2.4  
Canine Urinalysis- Specific Gravity 1.030, 1+Protein, 1+Blood

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

GSD Mix **Urinary System**

**SEX**  
Neutered Male  
The urinary bladder presented uniformly thickened urinary bladder wall isoechoic to the adjacent normal urinary bladder wall. The luminal margin of the thickened urinary bladder wall was mildly asymmetrical in contour. The apical urinary bladder wall thickness measured 0.60 cm. Mineralization or echogenic foci within the thickened areas of urinary bladder wall was not present. The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal.

**AGE**  
6 years

No overt pathology was noted in the area of the residual prostate.

**WEIGHT**  
34 Pounds  
Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 7.2 cm in length. The right kidney measured 7.9 cm in length.

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.9 cm length x 0.61 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 3.4 cm length x 0.62 cm width at the caudal pole.

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
ARDMS/RVT

**Spleen**

The spleen exhibited mild generalized enlargement. Overall decreased parenchyma echogenicity with multiple, variably sized to expansive hypoechoic nodules were present. An example of a splenic nodule measured 1.2 cm in diameter.

**HOSPITAL NAME**

Lehigh Valley AH  
(Allen)

**REFERRING VET**

Dr. Meyer

**Liver/ Gallbladder**

The liver exhibited generalized enlargement with uniform decreased hepatic parenchyma echogenicity compared to the falciform fat and mild asymmetrical caudal capsule contour. The gallbladder was non-distended in size with mild hyperechoic gallbladder debris. The gallbladder was otherwise normal. The cystic and common bile ducts were normal.

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**DATE**

9.8.2021



**PATIENT** *Gastrointestinal*

Loki Jerant The stomach presented intact yet mildly prominent walls. The lumen of the stomach was empty with mild luminal gas. The gastric body wall width measured 0.64 cm.

**SPECIES** The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material. The jejunum wall width measured 0.40 cm.

Canine

**BREED** Normal visible colon wall layers were present with apparent formed feces in lumen.

GSD Mix *Pancreas*

**SEX** The parenchyma of the left limb, body, and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.

Neutered Male

*Free Abdomen*

**AGE** Medial iliac lymph nodes and inguinal lymph nodes were present. The lymph nodes exhibited symmetrical to rounded margination with abnormal width: length ratio (>0.5). The enlarged lymph nodes were bordered by echogenic to reactive mesentery. An example of a hepatic lymph node measured 3.1 cm length and 2.2 cm width.

6 years

**WEIGHT**

34 Pounds

Generalized mild reactive mesentery along with small pockets of scant peritoneal effusion were present.

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(Canine and Feline)

Rapid view of the heart and thorax revealed subjective normal cardiac structure and function with concurrent pleural effusion and suspected cranial thoracic lymphadenopathy.

**ULTRASONOGRAPHIC FINDINGS**

*Primary Findings*

- Splenomegaly with decreased echogenicity and multifocal, variably sized, hypoechoic nodules
- Hepatomegaly with decreased parenchyma echogenicity and asymmetrical caudal contour
- Multifocal intraabdominal medial iliac and inguinal lymphadenopathy
- Generalized reactive mesentery and mild peritoneal free fluid
- Concurrent pleural free fluid and likely cranial thoracic lymphadenopathy

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Although sampling is required for further clarification, multicentric neoplasia involving the liver, spleen, multifocal intraabdominal medial iliac, and inguinal lymph nodes, as well as likely thoracic cavity, with primary consideration for multicentric lymphoma vs. other neoplasia. Potential for non-neoplastic etiology (inflammatory, infectious disease or other), are possible yet are considered less likely.

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Hepatosplenic, lymphatic FNA as well as effusion analysis with potential for oncology consultation is recommended.



**PATIENT**

Loki Jerant

**SPECIES**

Canine

**BREED**

GSD Mix

**SEX**

Neutered Male

**AGE**

6 years

**WEIGHT**

34 Pounds

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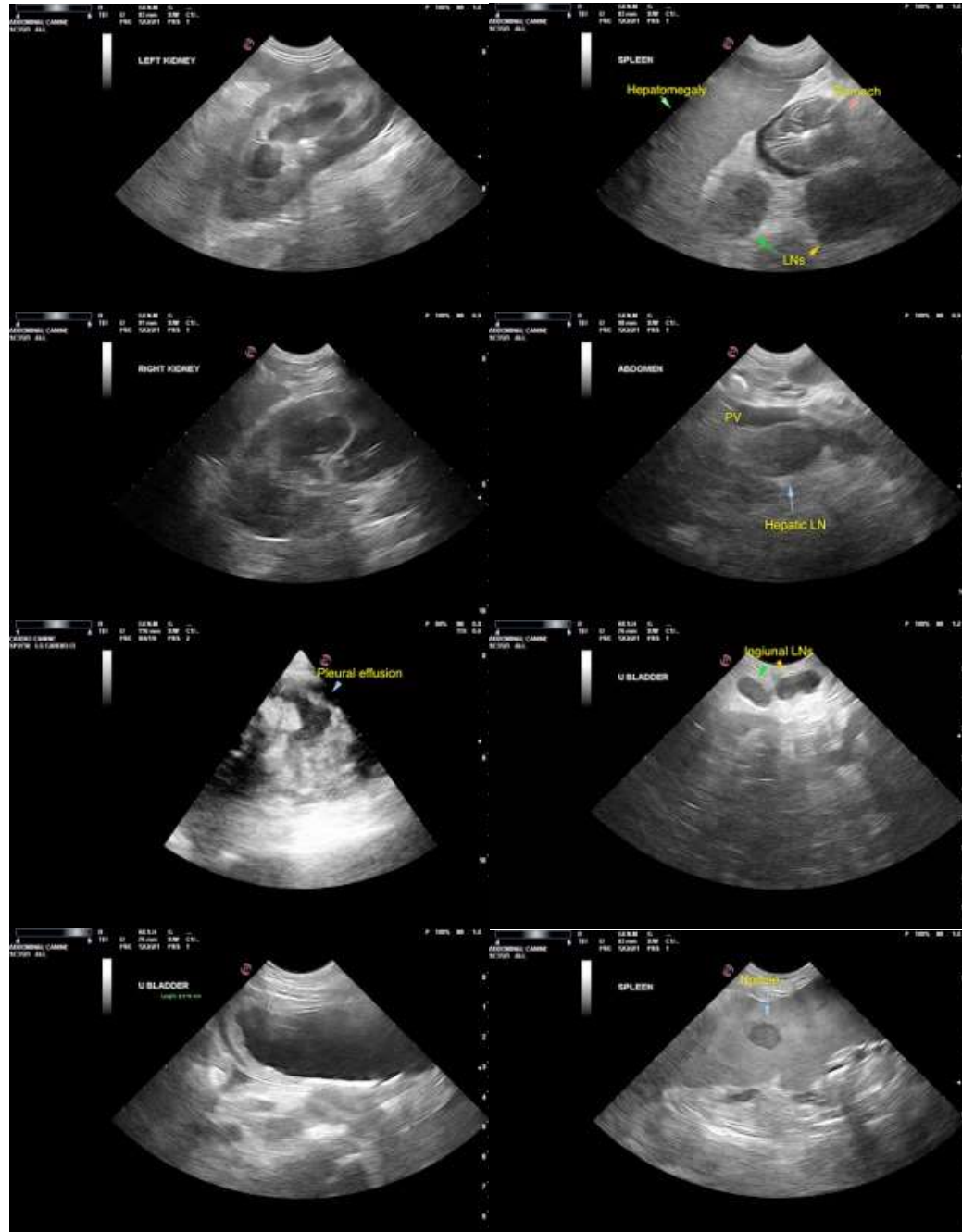
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**PATIENT**

Loki Jerant

**SPECIES**

Canine

**BREED**

GSD Mix

**SEX**

Neutered Male

**AGE**

6 years

**WEIGHT**

34 Pounds



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.

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