



**PATIENT PRESENTING CLINICAL SIGNS**

Tucker Kelly Chronic diarrhea and bloodwork had some abnormalities including anemia. Suspect lymphoma. Temp - 38.0

**SPECIES** Abnormal PE/Chem/CBC/UA Results: N/A

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED** *Urinary System*

Jack Russell Terrier

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and 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. No evidence of inflammatory or neoplastic changes was noted.

**SEX**

MN

The area of the residual prostate was free of overt pathology.

**AGE**

11 years

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 5.2 cm in length. The right kidney measured 5.0 cm in length.

**WEIGHT**

11.8 kg

*Adrenal Glands*

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.0 cm length x 0.55 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 1.4 cm length x 0.54 cm width at the caudal pole.

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP

*Spleen*

**IMAGING PERFORMED BY**

Crystal Hill

The spleen exhibited generalized enlargement with swollen to mildly asymmetrical splenic contour. Generalized splenic parenchyma heterogeneity exhibiting overall decreased splenic parenchyma mild hypoechoic heterogeneity. Mildly expansive nonhomogeneous mass was present in the caudal spleen measuring 5.5 cm in diameter. Concurrent separate mildly expansive nonhomogeneous hypoechoic nodules were present in the mid to cranial spleen. An example of a splenic nodule measured 2.5 cm in diameter. Subtle evidence of perisplenic reactive mesentery was noted.

**HOSPITAL NAME**

Nelson AH

**REFERRING VET**

*Liver/ Gallbladder*

Dr. Frederick

The liver exhibited mild to moderate enlargement yet maintained symmetrical capsule contour. Mild generalized decreased hepatic parenchyma echogenicity was noted with no hepatic masses or nodules noted. The gallbladder was non-distended in size containing primarily anechoic content with a solitary nonobstructive cholelith with minor hyperechoic luminal debris. The cystic and common bile ducts were normal.

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*Gastrointestinal*

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material.



**PATIENT**

Tucker Kelly

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.

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

**SPECIES**

Canine

***Pancreas***

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.

**BREED**

Jack Russell Terrier

***Free Abdomen***

Intermittent mid to caudal abdominal mesenteric to potential medial iliac lymph nodes were present. These lymph nodes were homogenous, mildly hypoechoic and smoothly marginated. A normal width: length ratio was maintained (<0.5). Evidence of perilymphatic inflammation was evident. An example of lymph node size was 1.6 cm x 0.93 cm. No evidence of peritoneal free fluid was noted.

**SEX**

MN

**AGE**

11 years

**ULTRASONOGRAPHIC FINDINGS**

- Infiltrative splenomegaly with mildly expansive caudal mass and concurrent separate mildly expansive mid to cranial hypoechoic nodules
- Hepatomegaly
- Nonobstructive cholelithiasis
- Intermittent mildly prominent yet hypoechoic mesenteric and potential medial iliac lymph nodes
- Overtly normal gastrointestinal tract

**WEIGHT**

11.8 kg

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**IMAGING**

**PERFORMED BY**

Crystal Hill

Although sampling is required for further assessment, the appearance of the spleen is consistent with Infiltrative neoplasia with considerations including; round-cell neoplasia i.e., lymphoma, sarcoma, or other. Concern for multicentric neoplasia potentially involving the liver, as well as emerging neoplastic lymphadenopathy, is warranted. Assuming normal clotting status, ultrasound-guided hepatosplenic FNA using a 25-gauge needle is recommended for further assessment and potential for oncology consultation. FNA accessibility of intraabdominal lymph node is likely precluded, given depth and current lymph node size.

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Three view chest radiographs are suggested if not done. A very guarded prognosis, pending hepatosplenic sampling, is warranted.

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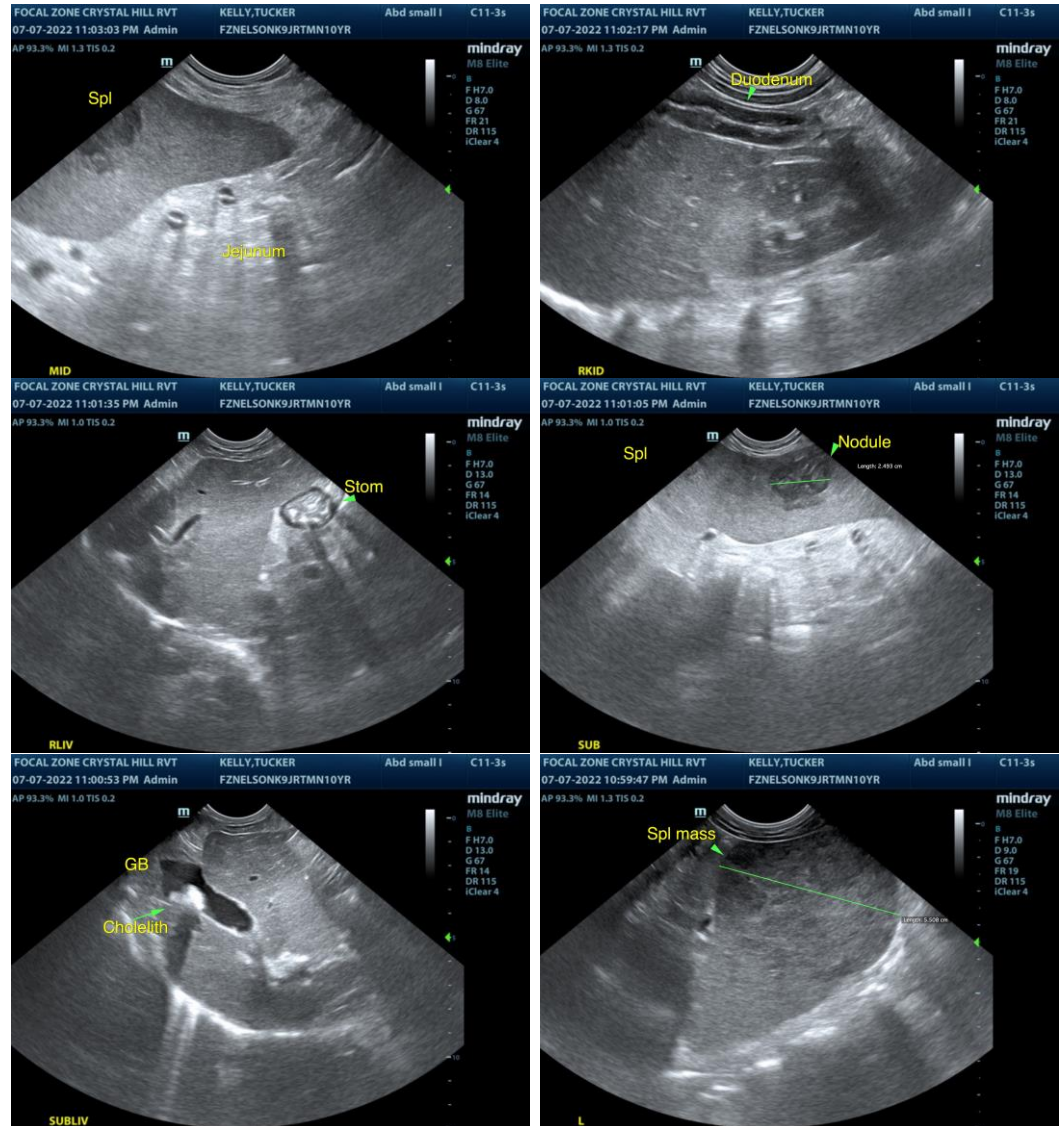
Dr. Frederick

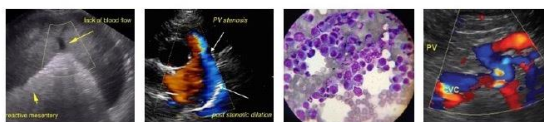
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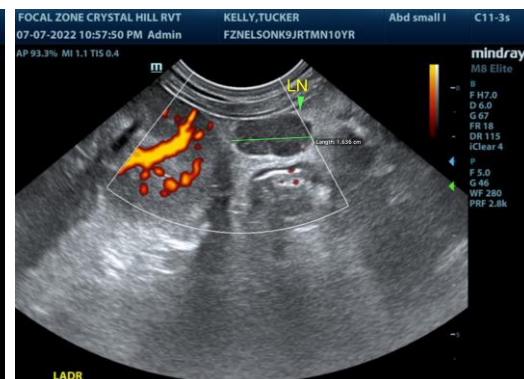
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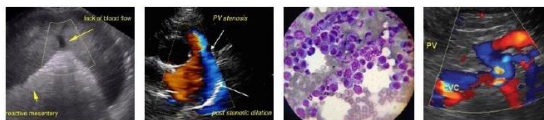
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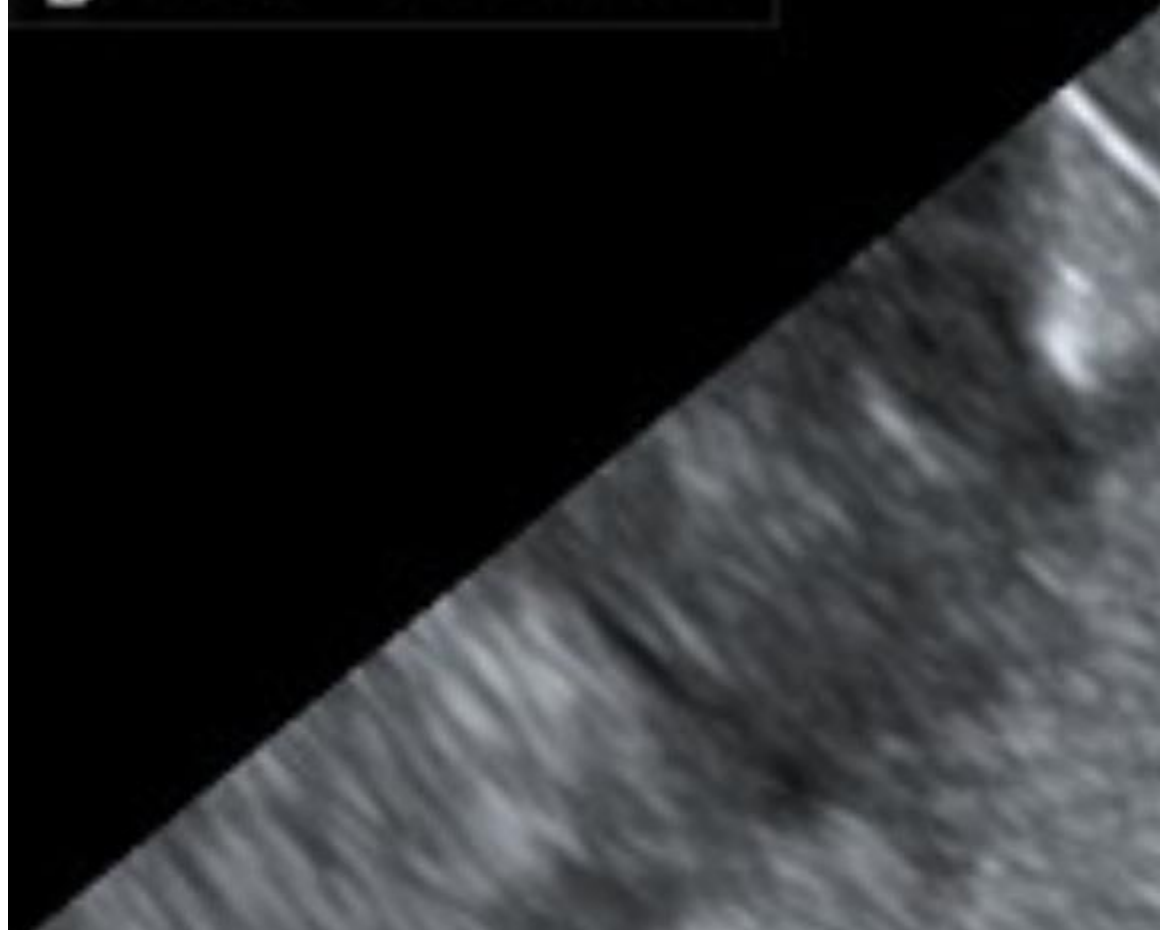
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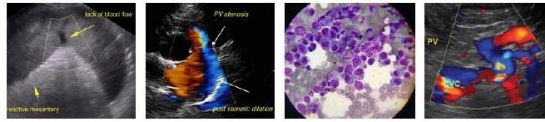
1 Dist 1.98 cm

2 Dist 0.55 cm

3 Dist 0.55 cm

IS 0.2





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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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
**info@SonoPath.com**