



## PATIENT

Jake Horwood

## PRESENTING CLINICAL SIGNS

## SPECIES

Canine

## BREED

Terrier X

## SEX

Neutered Male

Meds: Ofloxacin BID Dorzolamide SID Pred Acetate BID Finished Doxycycline Procedure: 3 view chest rads and AUS Current Problem List: Uveitis, concern for secondary glaucoma Hyperproteinemia Hyperglobulinemia Elevated AST, ALT, ALP Neutrophilia Presenting Complaint: Initially presented 4/1/22 for squinting and pawing at eyes for 1 week. Px diagnosed with uveitis with concern for secondary, induced glaucoma. Lab work performed and while pending px was started on Dorzolamide, Pred Acetate, Doxycycline and Gabapentin. Lab work showed elevated TP, GLOB, ALP, AST. Rechecked on 4/4/22, there was little to no improvement. His IOP improved, but there was still significant inflammation and redness. Os elected to continue another week of empiric treatment, added in Ofloxacin. Patient rechecked 4/12/22, px eyes still red, inflamed, pressures better but not resolved. Lab work rechecked and there is no improvement, mildly increasing liver values and now neutrophilia. Os elect to move forward with diagnostics. Scheduled for AUS and chest rads. Pertinent Diagnostic Results: 4/13/22 Total Body Function TP 7.5 GLOB 4.1 AST 81 ALT 304 ALP 708 NEUs 10744 4/2/22 Total Body Function GLOB 3.8 AST 117 ALT 559 ALP 613

## AGE

7.7 Years

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

## WEIGHT

19.6 Pounds

The prostate is normal/borderline large in size (1.33 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

## INTERPRETED BY

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

The left kidney has a normal shape and size (4.87 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

## IMAGING BY

Loetitia Saint-Jacques,  
LVT

The right kidney has a normal shape and size (4.67 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

## HOSPITAL NAME

Truckee Meadows VH

### Adrenal Glands

The left adrenal gland is normal in size measuring 0.49 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

## REFERRING VET

Dr. Rachel Kuester

The right adrenal gland is normal in size measuring 0.48 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

## INVOICE

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## DATE

4/20/22



**PATIENT**

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**Spleen**

The spleen is large in size with rounded margins. The spleen echotexture is heterogenous and mottled. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

**SPECIES**

Canine

**Liver**

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

**BREED**

Terrier X

**SEX**

Neutered Male

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a mild amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

**AGE**

7.7 Years

**Gastrointestinal**

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

**WEIGHT**

19.6 Pounds

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

**INTERPRETED BY**

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

**IMAGING BY**

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LVT

**Pancreas**

The pancreas is prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

**HOSPITAL NAME**

Truckee Meadows VH

**Free Abdomen**

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There are visible abdominal lymph nodes that measure as normal. The sublumbar lymph node is 0.5 cm. A mesenteric lymph node is 0.29 cm. The omentum is of normal echogenicity.

**REFERRING VET**

Dr. Rachel Kuester

**Other**

Small volume free abdominal fluid noted near the spleen.

A brief view of the heart was submitted. No significant pericardial effusion was seen.

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**PATIENT**

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**SPECIES ULTRASONOGRAPHIC FINDINGS**

Canine

- Borderline large prostate – Correlate with the age of neutering. The prostate appears relatively normal, but if this patient was neutered prior to puberty, it could be enlarged, and a fine needle aspirate could be warranted.

**BREED**

Terrier X

- Large, rounded, mottled spleen – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

**SEX**

Neutered Male

- Prominent, mottled pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

**AGE**

7.7 Years

- Mildly heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

**WEIGHT**

19.6 Pounds

- Mild gallbladder sludge – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

**INTERPRETED BY**

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

- Small volume free abdominal fluid near the spleen – The significance of this is unclear, but recommend a fine needle aspirate.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**IMAGING BY**

Loetitia Saint-Jacques,  
LVT

No large focal lesions are visualized to explain the elevated globulin, liver enzymes, and uveitis reported. The prostate is prominent in size. This could be normal for a dog neutered after puberty, but if this pet was neutered prior to 6 months of age, this could be abnormal. Correlate with digital rectal exam, radiographs, and consider a fine needle aspirate of the prostate.

**HOSPITAL NAME**

Truckee Meadows VH

The spleen is large with rounded margins and is mottled. This is the most definitive finding on today's scan. Recommend a fine needle aspirate of the spleen. There is a small triangle of fluid visualized near the spleen. A sample of this could be considered for fluid analysis and cytology.

**REFERRING VET**

Dr. Rachel Kuester

The liver appears somewhat heterogeneous. Some of this could be in part secondary to medications, but the liver enzyme elevations were present prior to starting medications, so this could be relevant. No focal lesions are visualized in the liver. Consider a liver function test and a fine needle aspirate of the liver. Additionally, screening for Leptospirosis would be reasonable.

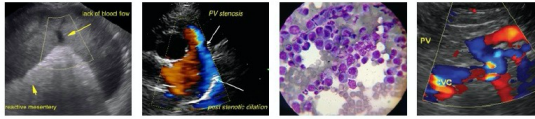
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If these diagnostics are not helpful, then you could consider a protein electrophoresis to better evaluate the hyperglobulinemia reported, and a full vector borne disease panel to NC State's vector borne disease lab to further evaluate for tickborne disease, etc.

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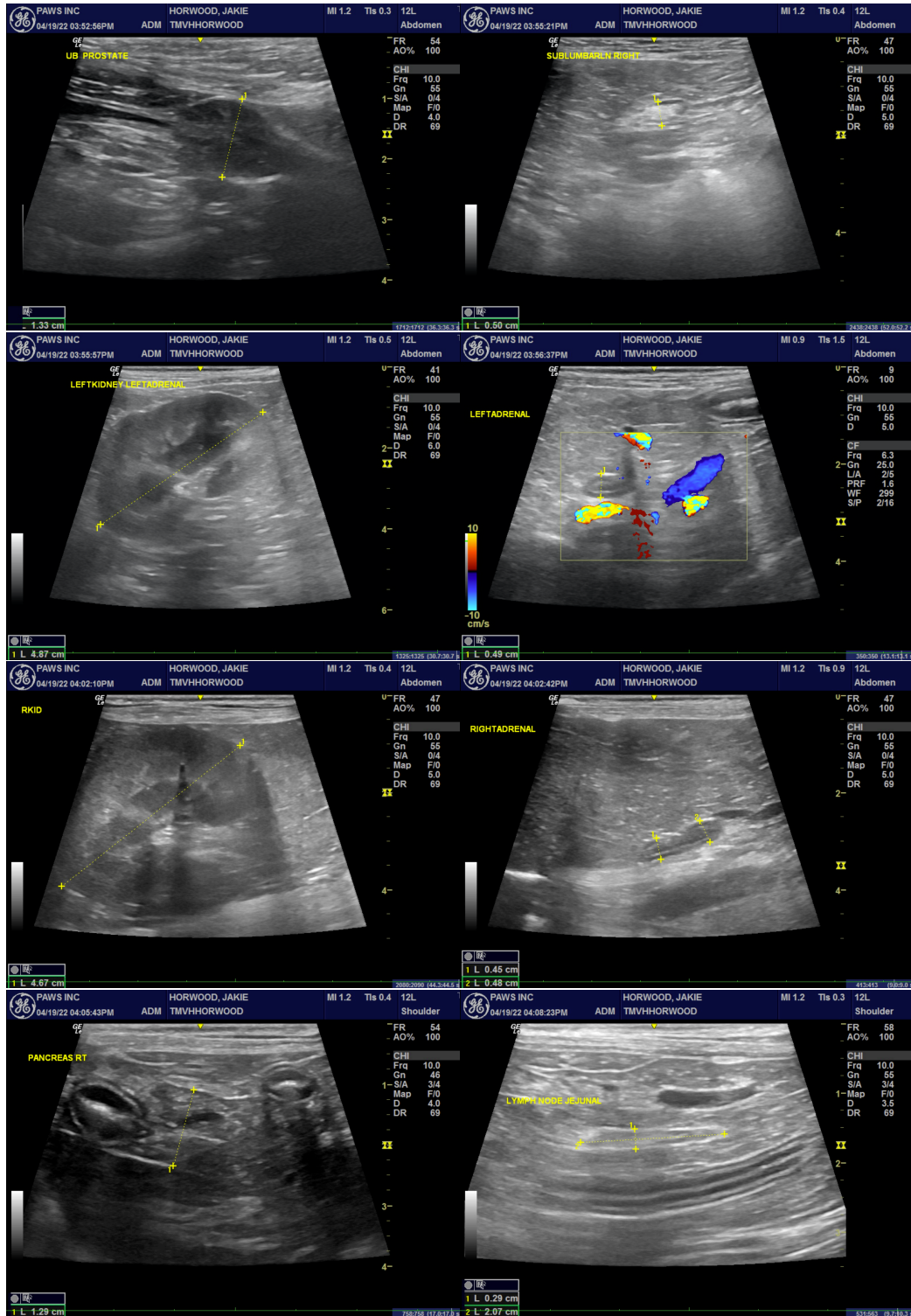
Dr. Rachel Kuester

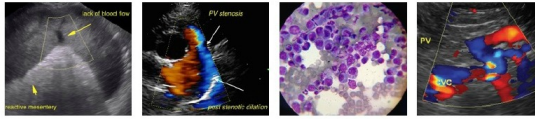
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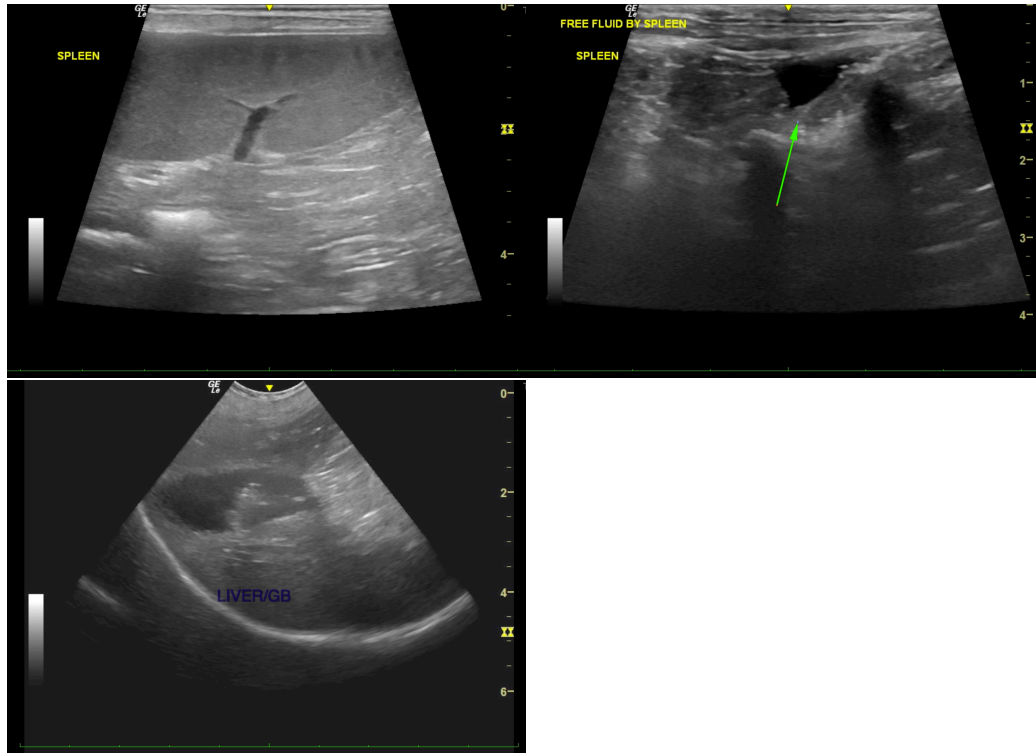
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**IMAGING BY**

Loetitia Saint-Jacques,  
LVT

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