



**PATIENT**

Kaya Athwell

**SPECIES**

Canine

**BREED**

Tibetan Mastiff

**SEX**

Female

**AGE**

3 years

**WEIGHT**

104 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Countryside AC

**REFERRING VET**

Dr. Kristina F Cox

**INVOICE**

12319

**DATE**

9/27/21

**PRESENTING CLINICAL SIGNS**

not eating, drinking a lot of water, diarrhea, distended abdomen, ascites, low protein

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

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.

The area of the aortic trifurcation was free of pathology.

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 6.6 cm in length. The right kidney measured 6.5 cm in length.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.7 cm length x 0.50 cm width at the caudal pole. No overt pathology was noted in the area of the right adrenal gland.

**Spleen**

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

**Liver/ Gallbladder**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of hepatic congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. No evidence of gallbladder wall edema. The cystic and common bile ducts were normal.

**Gastrointestinal**

The stomach presented wall thickening secondary to echogenic mucosa hypertrophy. Intact yet prominent wall layering was present. The gastric body wall measured 0.88 cm width. Mild gastric distension was noted. Minor retained echogenic nonshadowing ingesta and chyme was present.



|  |   |
|--|---|
| <b>PATIENT</b>   | Generalized increased intestinal mucosa echogenicity with mucosa speckling to fogging along with intermittent echogenic to hyperechoic mucosal lesions were present. Intestinal wall layering was maintained with mild altered 1:3 muscularis / mucosa ratio. There was no evidence of an obstructive pattern or foreign material. The appearance of the small intestine is most consistent with protein losing enteropathy or lymphangiectasia. There was no evidence of infiltrative or neoplastic intestinal disease which is considered unlikely but cannot be ruled out without full thickness or endoscopic biopsies. The jejunum wall width measured 0.60 cm. The duodenum wall width measured 0.62 cm. The ileum wall width measured 0.71 cm. |
| Kaya Athwell   |   |
| <b>SPECIES</b>   |   |
| Canine   |   |
| <b>BREED</b>   |   |
| Tibetan Mastiff  | The colon walls presented intact yet prominent wall layering with mild thickened to echogenic submucosa. The colon was primarily empty with mild luminal gas.   |
| <b>SEX</b>   |   |
| Female   |   |
| <b>AGE</b>   |   |
| 3 years  |   |
| <b>WEIGHT</b>  |   |
| 104 lbs.   |   |
| <b>INTERPRETED BY</b>                                    |   |
| R. McKenzie Daniel,<br>DVM, DABVP<br>(Canine and Feline) |   |
| <b>IMAGING PERFORMED BY</b>                              |   |
| Jenna Walsh, CVT   |   |
| <b>HOSPITAL NAME</b>                                     |   |
| Countryside AC   |   |
| <b>REFERRING VET</b>                                     |   |
| Dr. Kristina F Cox                                       |   |
| <b>INVOICE</b>   |   |
| 12319  |   |
| <b>DATE</b>  |   |
| 9/27/21  |   |

**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.

**Free Abdomen**

Moderate, acellular peritoneal free fluid was present. Mild generalized reactive mesentery was noted.

Multiple mesenteric nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5). An example of a lymph node measured 1.0 cm diameter.

Rapid view of the heart revealed no evidence of structural cardiomyopathy. Potential for mild concurrent pleural effusion is possible. Correlation with three view chest radiographs is recommended.

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

- Enteropathy with mucosal speckling to intermittent hyperechoic mucosal lesions and moderate to severe ileitis - IBD, lymphangiectasia, or infiltrative enteropathy / enterocolonopathy (neoplasia, fungal or other), possible, IBD or lymphangiectasia is favored
- Probable concurrent colitis
- Moderate, subjectively acellular peritoneal free fluid and generalized reactive mesentery
- Associated mesenteric lymphadenopathy - lymphoid hyperplasia or minor reactive lymphadenitis likely

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Ideally, enterocolic biopsies would be obtained for a definitive diagnosis yet contraindicated at current albumin levels. Empirically, some or all of the following protocol would be appropriate with assessment of clinical response.



**PATIENT**

Kaya Athwell

**SPECIES**

Canine

**BREED**

Tibetan Mastiff

**SEX**

Female

**AGE**

3 years

**WEIGHT**

104 lbs.

**OBJECTIVE: keep albumin levels > 2 g/dl, avoid thromboembolism and cavitory effusions, monitor concurrent PLN (Wheaton Terrier PLE/PLN) and liver disease:**

**Plasma** 10 mL / kilogram IV over 4 hours

Or **Human albumin** 2 ml/kg/h over 10 hours. Total daily volume 20.l/kg/day

**And Colloids/Hetastarch**

10 to 20 mL per kilogram per day and dogs

10 to 15 mL per kilogram per day cats

(Can bolus first 1/3 of dose over 15 minutes)

& maintain on LRS maintenance otherwise.

**Metronidazole** (10-20 mg/kg po bid)

**Famotidine** 1 mg/kg Iv Im po dc Sid /bid

**Sucralfate** 0.5-1 g po tid dogs, 0.5 g bid cats in slurry Or **Misoprostol** 1-5 ug/kg po tid

**Diet:** Highly digestible high quality protein, low fiber, low fat diet (< 15% of dry matter). Hydrolyzed protein or novel protein. Purina HA or Royal Canine HP or similar.

**Prednisone** or prednisolone 2 mg/kg bid x 3-5 days then 2 mg/kg sid. **Chlorambucil** in refractive severe IBD/alimentary lymphoma cases (monitor cbc for rare bone marrow suppression) 4 mg/m<sup>2</sup> Q 24-48 hours.

**Cobalamine** (B12) 250-1500 ug/dog weekly x 6 weeks.

**Calcium** supplementation if necessary.

**Aspirin** 0.5-1 mg/kg/day or **Clopidrel** (Plavix) 1-5 mg/kg/day.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Countryside AC

**REFERRING VET**

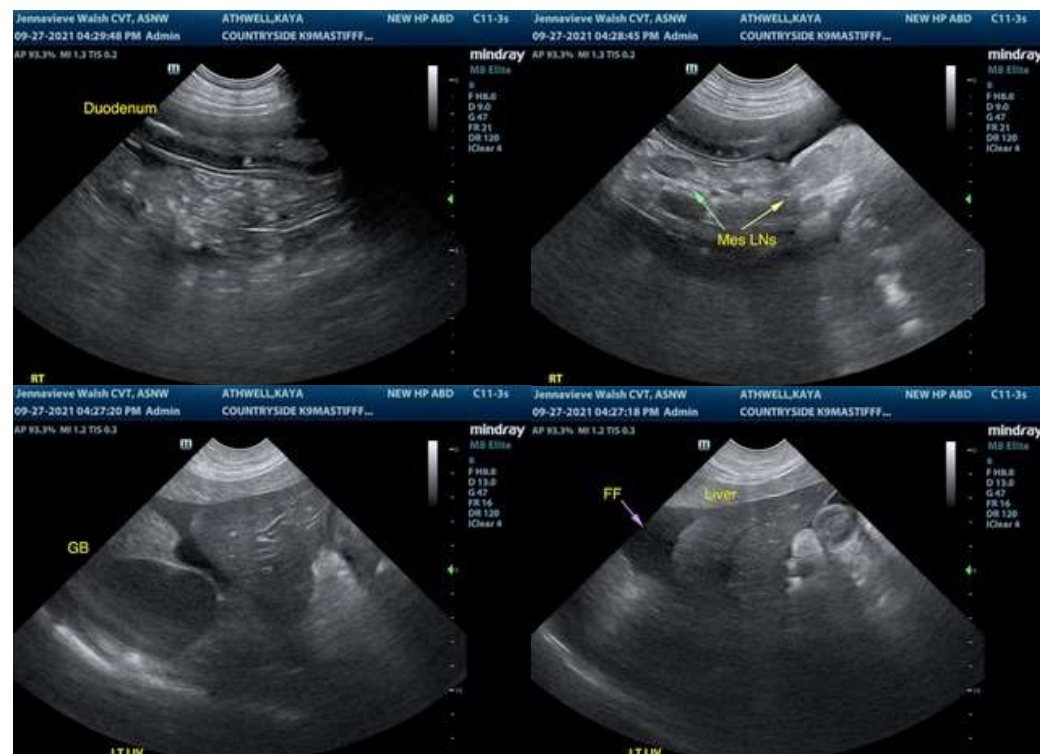
Dr. Kristina F Cox

**INVOICE**

12319

**DATE**

9/27/21





**PATIENT**

Kaya Athwell

**SPECIES**

Canine

**BREED**

Tibetan Mastiff

**SEX**

Female

**AGE**

3 years

**WEIGHT**

104 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Countryside AC

**REFERRING VET**

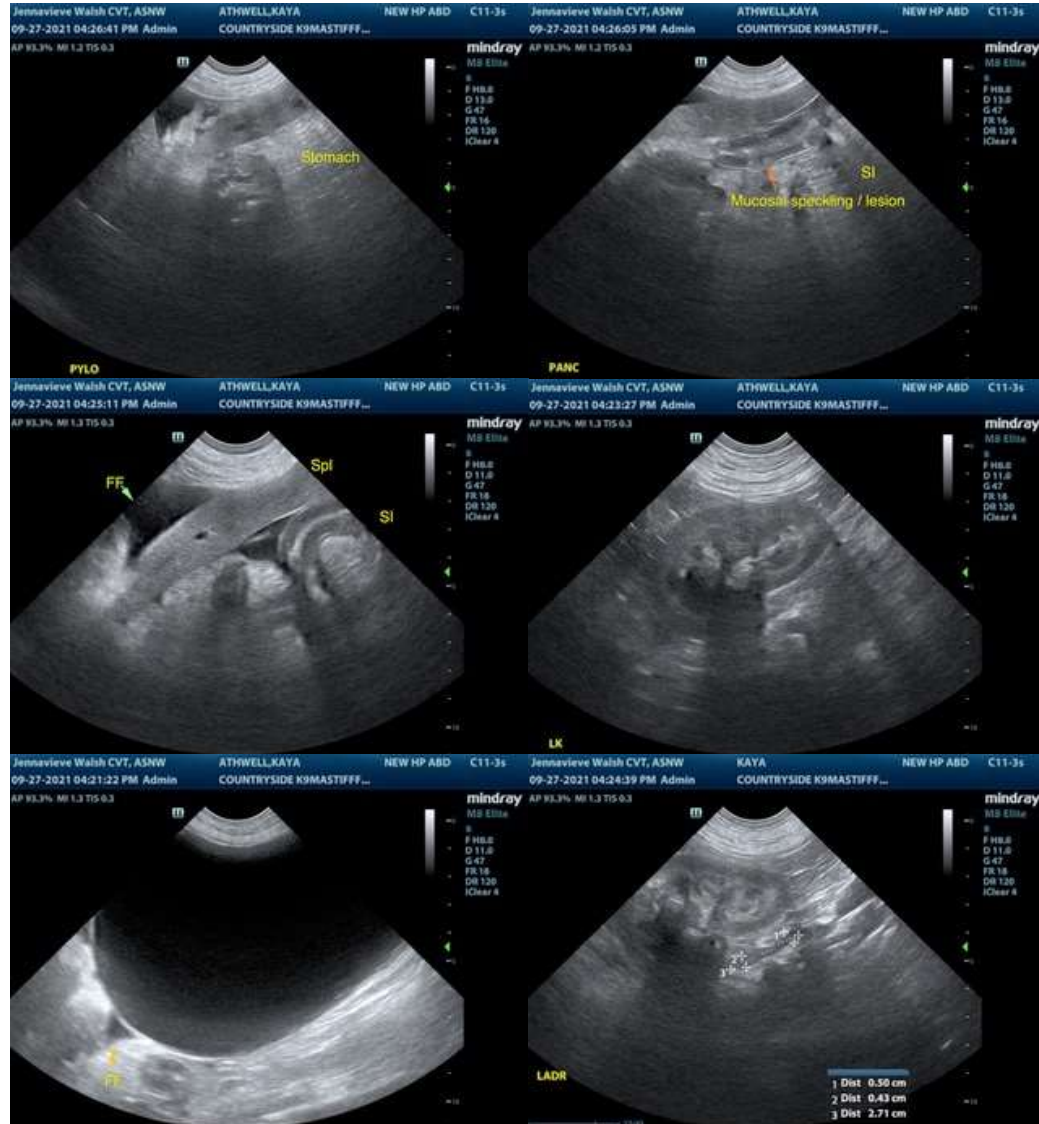
Dr. Kristina F Cox

**INVOICE**

12319

**DATE**

9/27/21



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.

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