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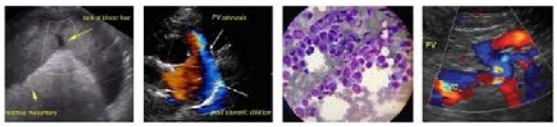


THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

**PATIENT**

Ryder McGeachy

**SPECIES**

Canine

**BREED**

Shepherd X

**SEX**

Spayed Female

**AGE**

1 Year

**WEIGHT**

21.4 kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Main Street AH

**REFERRING VET**

Dr. Morris

**INVOICE**

42526

**DATE**

11/3/22

## PRESENTING CLINICAL SIGNS

Examined October 18/22 as intermittent vomiting for last 10 days and inappetence. M1 gas in abdomen noted. No other abnormalities noted, limited exam due to behaviour. Bloodwork sent to lab and booked radiographs for a separate day. -After reviewing bloodwork with O, recommended hypoallergenic food trial. Started on Vegetarian. -November 1/22 sedated for radiographs, examined while under sedation and M3 thickened intestinal loops palpated. M3 full anal glands with M1 blood/mucus on glove. O noted still vomiting but has not be strictly keeping to food trial. Ultrasound recommended. meds: Metonia, Trazodone

Abnormal PE/Chem/CBC/UA Results: please see attached labs rads: -Thorax NAF. M3 thickened intestinal loops of bowel. Dorsal displacement of stomach. No signs of diaphragmatic hernia or megaesophagus.

## 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.

The left kidney has a normal shape and size (5.53 cm). Overall echogenicity is slightly hyperechoic with mildly reduced corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.99 cm). Overall echogenicity is slightly hyperechoic with mildly reduced corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

### *Adrenal Glands*

The left adrenal gland is normal/borderline “flat”, measuring 0.39 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.

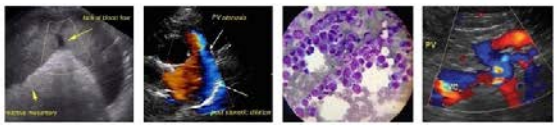
The right adrenal gland is normal/borderline “flat”, measuring 0.44 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

### *Spleen*

The spleen is subjectively normal in size. The spleen echotexture is heterogenous and mildly mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

### *Liver*

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





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The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

### *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.

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. Jejunum wall measures 0.41 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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.

### *Pancreas*

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

### *Free Abdomen*

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is a large, prominent mesenteric lymph node visualized measuring 1.59 cm in diameter. The omentum is largely of normal echogenicity.

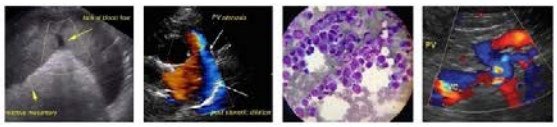
## ULTRASONOGRAPHIC FINDINGS

- Subjective mild reduction of corticomedullary distinction in both kidneys – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. This is mild but appears inappropriate for such a young dog.
- Mildly 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. This could be within normal limits for a German Shepherd but appears somewhat prominent.
- Enlarged mesenteric lymph node – Possible differentials would include inflammation, infection, or underlying neoplasia. Large lymph nodes are common for young dogs, so this could just be a reactive lymph node.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No focal lesions are visualized associated with the gastrointestinal tract or stomach. The low albumin, globulin, and cholesterol are concerning for a possible protein losing enteropathy. Additionally, foreign material cannot be definitively ruled out. Correlate with serial abdominal radiographs. Additionally, consider a urinalysis and urine protein to creatinine ratio to rule out concurrent urine protein loss, a liver function test to rule out liver dysfunction, and an ACTH stimulation test or baseline cortisol to look for underlying Addison's disease.

The spleen appears mildly mottled, but I suspect this could be within normal limits for the breed. Additionally, there is a large mesenteric lymph node, which I suspect is too deep to easily reach. If a





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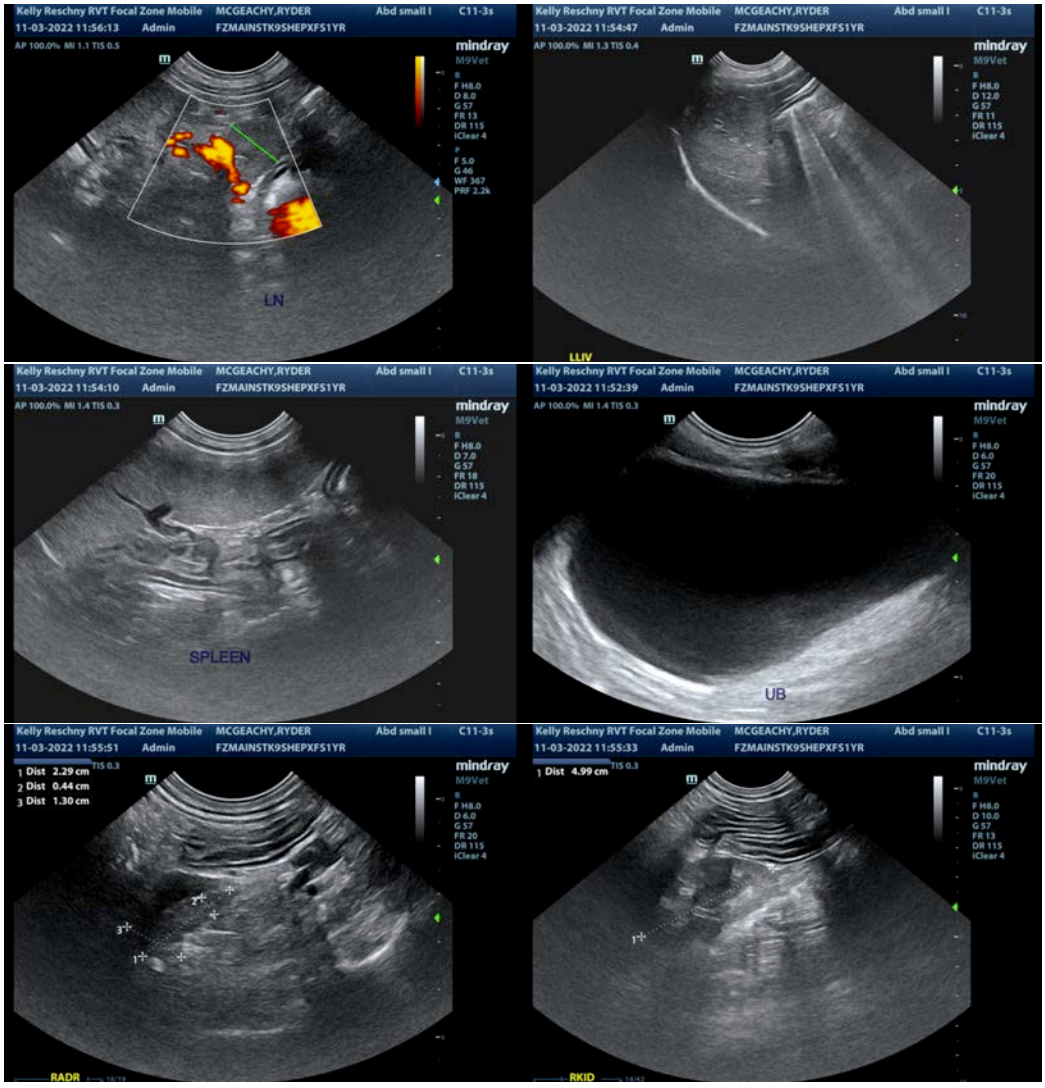
more superficial mesenteric lymph node can be identified, you could consider a fine needle aspirate, although in young dogs, reactive mesenteric lymph nodes are common.

If other casues of likely protein loss are ruled out, and a primary protein losing enteropathy is suspected, then consider:

- Consider a novel protein/hydrolyzed protein diet (exclusively at least 4-6 weeks). If your vegetarian diet is a prescription diet with a single sourced protein and no cross contamination in the factor, that could be an option.
- Consider a GI panel to Texas A&M for evaluation of B12 levels, folate, PLI/TLI etc.. to further evaluate for pancreatic/small intestinal disease.
- Consider chronic probiotic therapy.
- If symptoms persist, consider obtaining GI biopsies.



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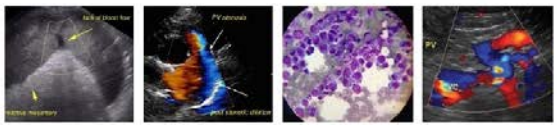

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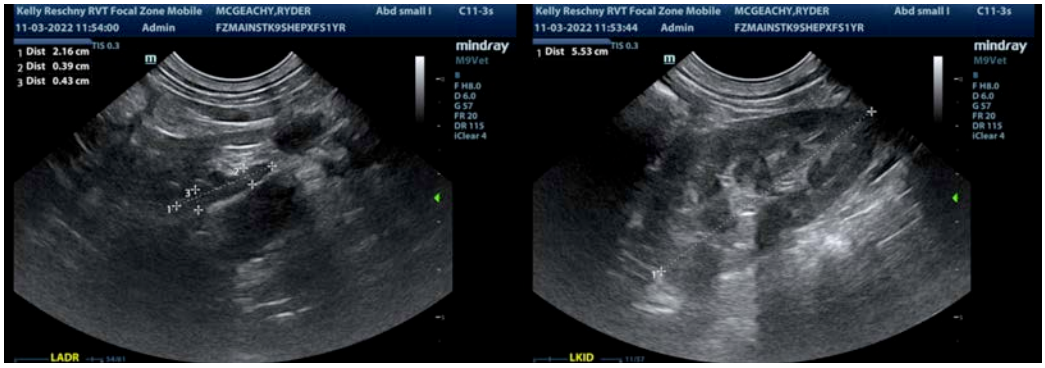


**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

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

kathleen.sennello@sonopath.com