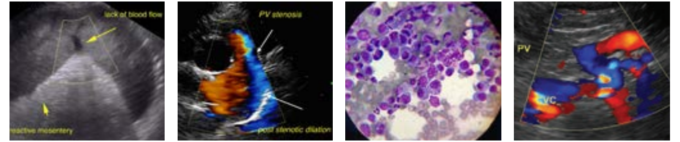
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com™
1-800-838-4268 info@sonopath.com

**PATIENT**

Missy Bollard

**SPECIES**

Canine

**BREED**

Bernadoodle

**SEX**

Spayed Female

**AGE**

4 Years 10 Months

**WEIGHT**

91 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Karen Ebersole, DVM, DABVP (Canine/Feline)

**HOSPITAL NAME**

Scanvet

**REFERRING VET**

Dr. Neat

**INVOICE**

47006

**DATE**

4/27/23

## PRESENTING CLINICAL SIGNS

Repeated episodes of pancreatitis and hemorrhagic gastroenteritis. Currently on IVF and antibiotics in hospital. Similar episode in March 2023. Does tend to get into things, ham bones, etc. Butorphanol IV for sedation.

Abnormal PE/Chem/CBC/UA Results: PE: BAR today. RADS (attached): possible enlarged L kidney. Gas throughout GI. Parvo test: NEG . cPL: Abnormal. WBC 5.6k, manual diff: Neut 52%, Bands 10%, Lymphs 37%, Mono 1%. Anisocytosis and anisokaryosis. Early band cells present. CHEM: TP 5.2, rest WNL

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. No evidence of mineral or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were 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 right kidney measured 6.4 cm. The left kidney measured 6.5 cm.

### *Adrenal Glands*

Both adrenal glands presented normal to possible borderline mild subnormal size. Symmetrical capsule contour and homogeneous parenchyma noted. The left adrenal gland measured 3.1 cm length x 0.55 cm at the caudal pole. The right adrenal gland measured 3.4 cm length x 0.70 cm at the caudal pole.

### *Spleen*

The spleen was normal in size and contour and exhibited a primarily finely textured and homogenous parenchyma. A solitary, well demarcated, non-disruptive hypoechoic mid splenic nodule was noted measuring 1.2 cm diameter. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis.

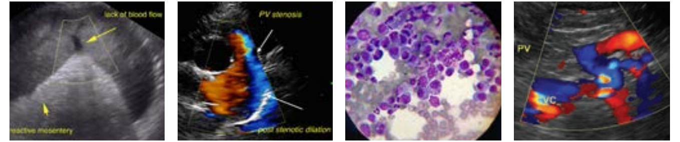
### *Liver*

The liver exhibited subjective borderline to mild subnormal size. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. Subjective adequate hepatic vascular volume. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

### *Gastrointestinal*

The stomach presented wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. Mild gastric distension with primarily anechoic fluid was present.

The small intestine presented intact wall layering with primarily maintained 1:3 muscularis/mucosa ratio. Segmental to generalized propensity for mildly prominent, hyperechoic intestinal submucosal layer. No obstructive pattern or evidence of foreign material.



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Normal visible colon wall layers were present with subjective mild colon gas distention.

### *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 was evident.

### *Free Abdomen*

Intermittent, mildly prominent to enlarged mesenteric nodes were present. Example measured 1.8 cm diameter. The lymph node was essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5).

## ULTRASONOGRAPHIC FINDINGS

- Non-specific, non-disruptive splenic nodule – subjectively benign, suspect focal area of incidental hyperplasia, hematopoiesis, or similar.
- Subjective borderline to mild microhepatica – non-specific, potential for patient variant.
- Mild gastritis pattern.
- Possible inflammatory enteropathy, mild colon gas distention.
- Sonographically unremarkable pancreas.
- Intermittent benign/reactive mesenteric lymph nodes.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Although non-specific, the small intestine exhibited mild mural changes, specifically subjective mild prominent to hyperechoic submucosa, which may suggest inflammatory enteropathy such as IBD. Dietary indiscretion/food intolerance, inflammatory enterocolonopathy, low-grade to chronic pancreatitis (which may present sonographically normal), occult parasitism, occult Addison's disease are all potentials.

Further assessment may include GI panel to include PLI, TLI, cobalamin and folate as well as resting cortisol level to rule out occult Addison's disease. No overt evidence of intrahepatic or extrahepatic macroscopic shunt. Sonographic monitoring of the splenic nodule for evidence of progression would be reasonable.

The appearance of the gastrointestinal tract was non-specific with considerations including dietary intolerance / food hypersensitivity, occult parasitism, inflammatory bowel disease without evidence of mural changes or other. A GI panel to include PLI/TLI/Cobalamin/Folate, fresh fecal analysis to assess for parasitic ova / Giardia and resting cortisol to rule out occult Addison's Disease is warranted.

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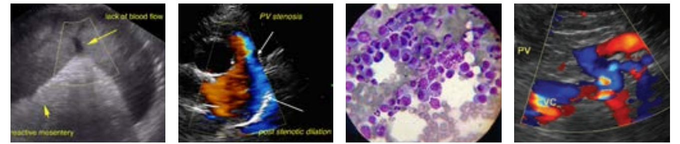

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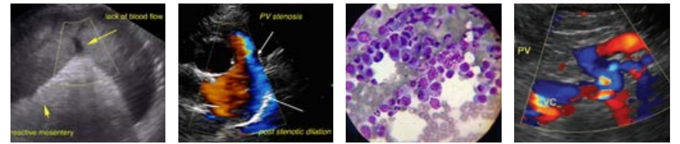

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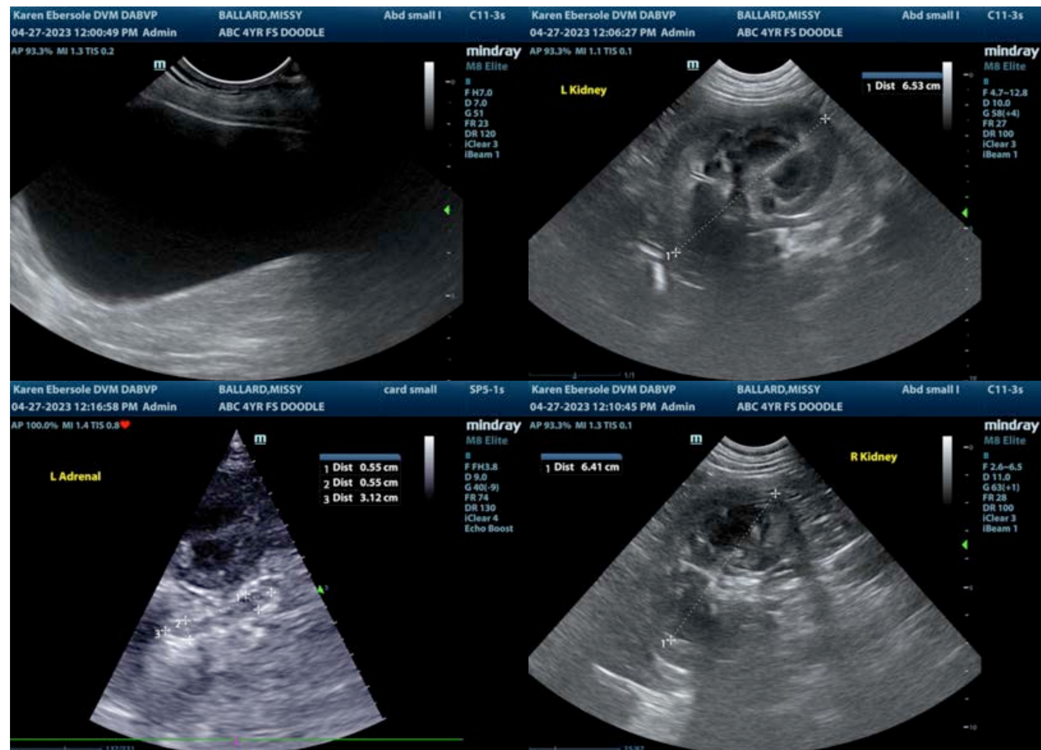


**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**

**info@SonoPath.com**