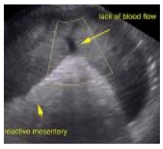
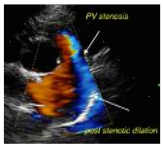
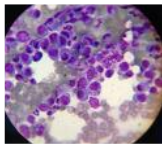
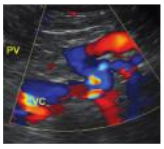
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™





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

PATIENT

Bear Nienstedt

SPECIES

Canine

BREED

German Shepherd

SEX

M/Intact

AGE

1 year

WEIGHT

30.1 kgs

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton Vet

REFERRING VET

Dr. Kim

INVOICE

14942

DATE

9/22/22

PRESENTING CLINICAL SIGNS

Vomiting x 4 days, inappetence, diarrhea. Treated as outpatient on Monday and Tuesday with no improvement. Current meds: Omeprazole 20mg bid, Metronidazole 250mg bid, Proviable
Abnormal PE/Chem/CBC/UA Results: Lym 9.99 (4.91 H), Hct 56.11 (56 H), TP 5.2 (5.5 L), Na 139 (141 L), K+ 2.5 (3.8 L), Cl 96 (102 L)

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 prostate was of expected size and presentation for a young intact male canine, measuring 1.6 cm in diameter.

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 7.8 cm in length. The right kidney measured 7.0 cm in length.

Adrenal Glands

The left adrenal gland exhibited mild subjective subnormal size measuring 2.5 cm length x 0.39 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 2.8 cm length x 0.56 cm width at the caudal pole.

Spleen

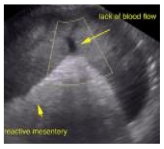
The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute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

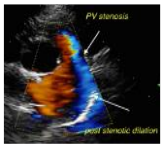
Liver/ Gallbladder

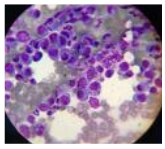
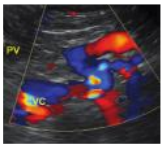
The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented intact mildly prominent wall layering. The pylorus wall width measured 0.69 cm. The stomach was moderate to markedly distended with retained anechoic fluid and mild,





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nonshadowing echogenic ingesta / chyme along with multifocal, suspected, hyperechoic, linear-like echoes. No overt evidence of mechanical pyloric outflow obstruction or obstructive pyloric mural pathology.

The small intestine presented intact wall layering with a maintained 1:3 muscularis/mucosa ratio. Minor areas of segmental intestinal ileus without evidence of obstructive pattern were present. Segmental to generalized propensity for mildly prominent to echogenic submucosa layer was noted to the level of the ileum. The ileum exhibited prominent wall layering to the level of the ileocolic junction. The duodenum wall measured 0.42 cm width. The jejunum wall measured 0.27 cm width. The ileum wall measured 0.51 cm width. No overt pathology i.e., intussusception at the level of the ileocolic junction was noted.

The colon walls presented intact yet mild to moderate prominent wall layering with mild thickened to echogenic submucosa. Generalized nonformed fecal matter, consistent with patient history, was present in the colon.

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

Intermittent mesenteric lymph 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 lymph node measured 2.1 cm length. Primarily mildly hyperechoic peri intestinal omentum was present. Scant to mild volume anechoic peritoneal free fluid was noted.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

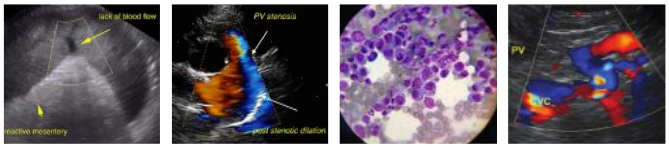
- Moderate to marked distended stomach containing retained anechoic fluid, mild nonshadowing ingesta / chyme, and multiple suspended hyperechoic linear-like echoes - the linear-like echoes suggestive of grass
- Enterocolonopathy exhibiting propensity for mildly prominent to echogenic intestinal submucosa layer
- Intermittent subjectively benign / reactive mesenteric lymph nodes
- Primarily peri intestinal mild hyperechoic mesentery and scant to mild volume peritoneal free fluid

Secondary Findings

- Subjective mild subnormal left adrenal gland - nonspecific

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

General considerations for the moderate to markedly distended stomach with retained fluid, ingesta/ chyme and hyperechoic suspended linear-like echoes may include metabolic vs. mechanical gastric



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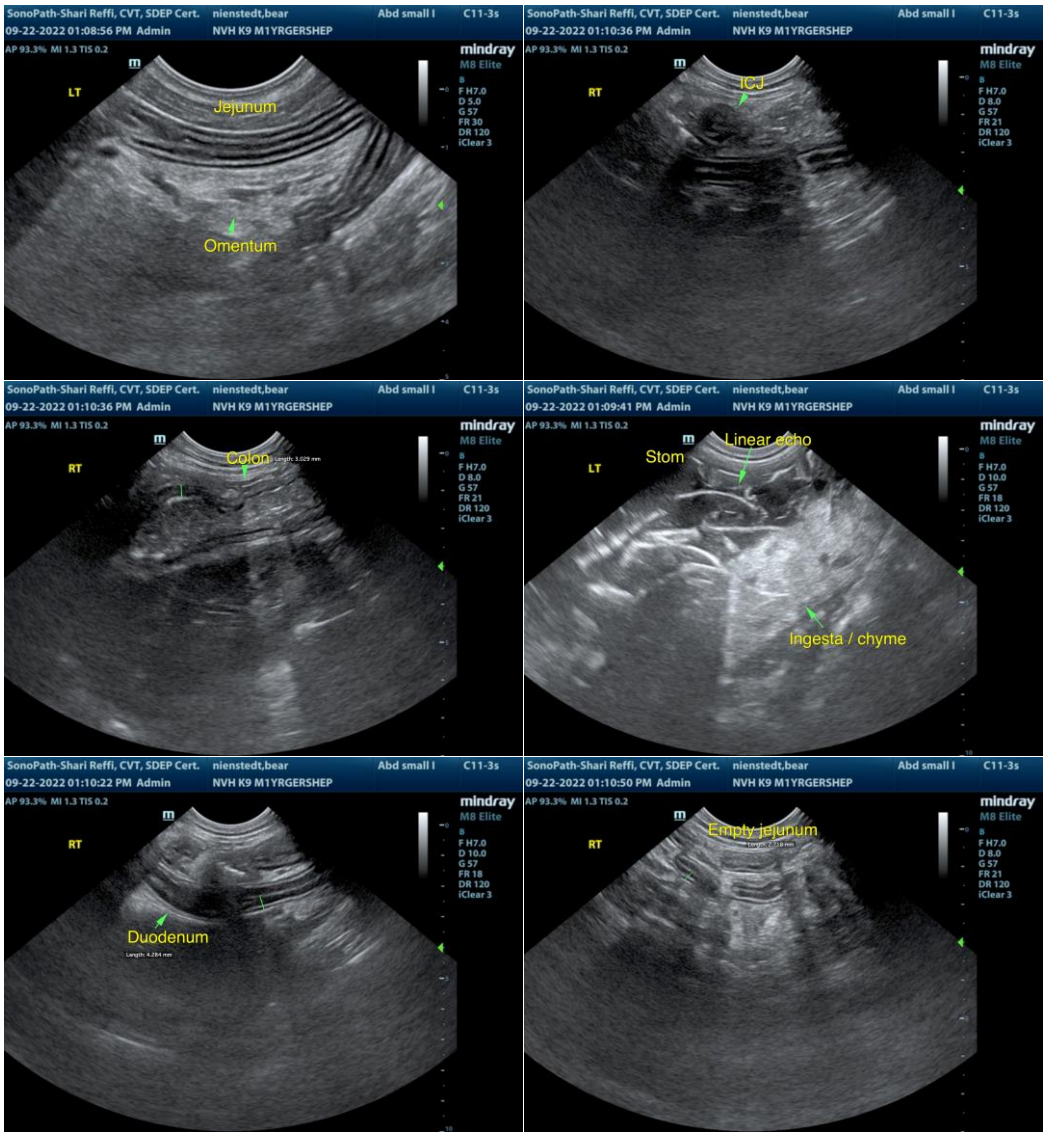
stasis, dietary indiscretion / food hypersensitivity, dysbiosis, IBD, infectious gastroenterocolitis, gastroenterotoxic insult, and less likely infiltrative neoplasia are all potentials.

Given the degree of gastric distention and assuming adequate albumin levels (>2.0), exploratory laparotomy with gross inspection of the pyloric outflow and upper intestinal tract and with gastroenterocolic biopsies considered essential is warranted. Patient stabilization including rehydration with electrolyte correction may be considered prior to surgical considerations. Hospitalization with dehydration correction, electrolyte supplementation, as-needed gastrointestinal support and recheck sonogram in 24 hours would be a more conservative approach. Resting cortisol level to rule out occult Addison's Disease, is warranted.



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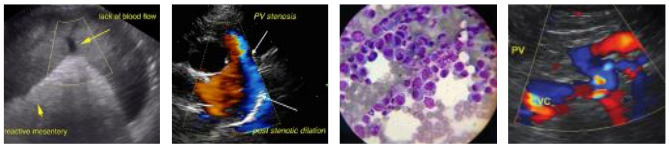

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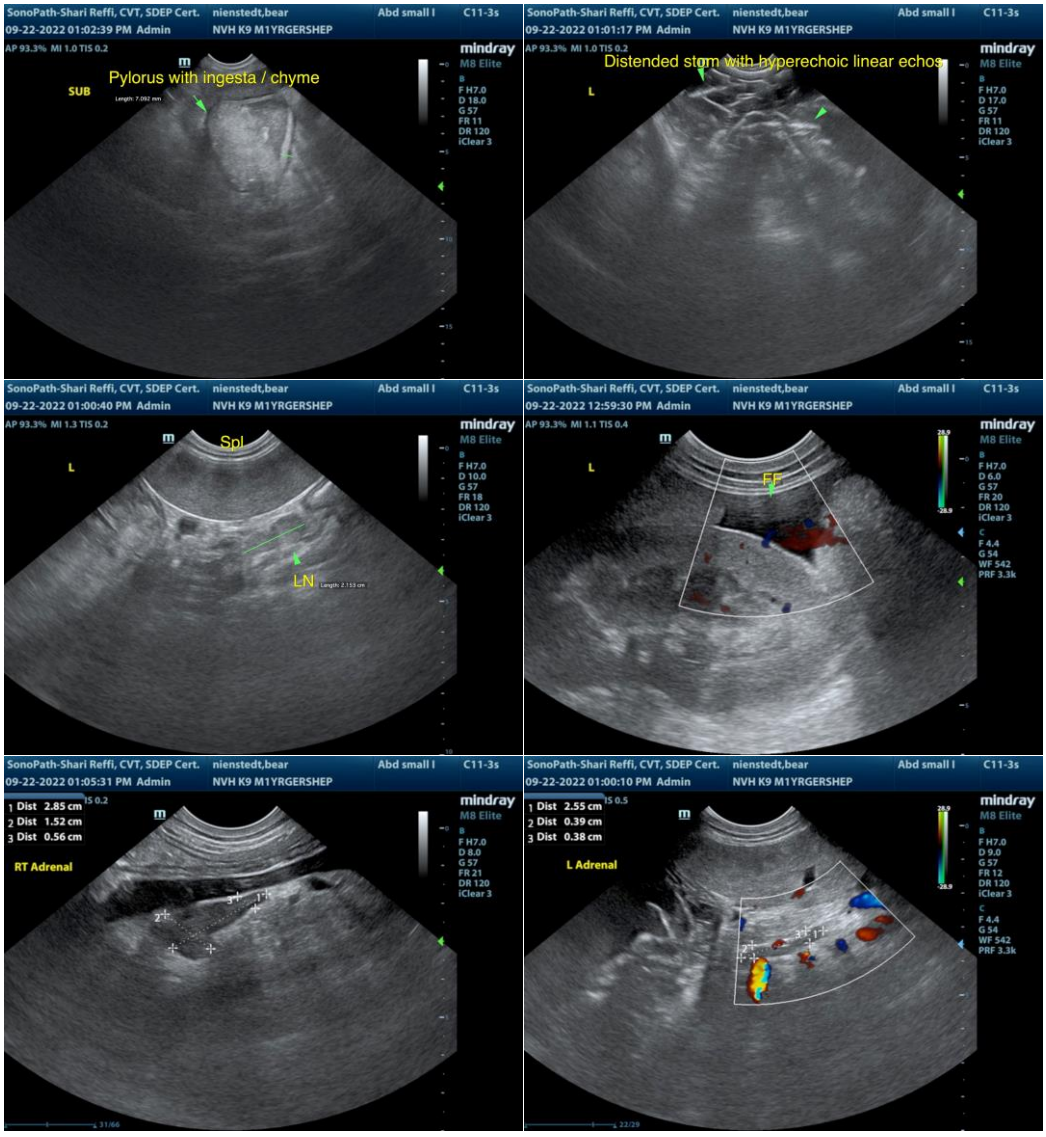

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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