SonoPath
Clinical Sonography & Telecytology
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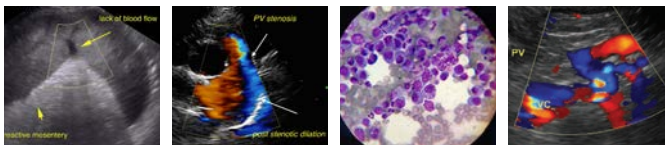

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1-800-838-4268 info@sonopath.com

PATIENT
Blue Anderson

SPECIES
Canine

BREED
Blue Heeler

SEX
Neutered Male

AGE
4 Years

WEIGHT
48.4 Pounds

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

IMAGING PERFORMED BY
Dr. Lucas Budden

HOSPITAL NAME
Frontier Vet Hospital

REFERRING VET
Dr. Lucas Budden

INVOICE
46474

DATE
4/6/23

PRESENTING CLINICAL SIGNS

Clinical signs: Recurrent episodes of vomiting History: Presented 3/16/23 for a recheck after a visit to a local ER clinic for vomiting blood (3/10/2023) and an intermittent appetite. Treated with fluids, Cerenia, Panacur, Entyce. Back to normal by 3/16/23. Presented again 4/1/23 for vomiting and intermittent appetite again. Treated with Cerenia, fluids, omeprazole, and sucralfate. Back to normal by presentation today for ultrasound. Ultrasound to assess for underlying cause of recurrent vomiting/anorexia. Current medications: trazodone, sucralfate injectable Dexdomitor/Butorphanol for imaging today

Abnormal PE/Chem/CBC/UA Results: Physical exam: Very tense in general for exam. No petechiae or ecchymosis. Tense on abdominal palpation. Normal exam otherwise. Lab work: Abdominal rads at ER 3/10/23 No evidence of a FB or obstructive pattern. 3/16/23 cbc/chem/pt/ptt wnl

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 prostate is normal in size (0.99 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.

The left kidney has a normal shape and size (5.98 cm). Overall echogenicity is normal with adequate 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 (6.48 cm). Overall echogenicity is normal with adequate 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 borderline “flat” measuring 0.40 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.

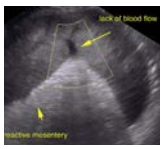
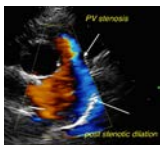
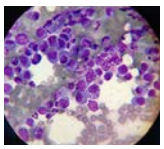
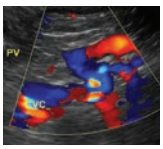
The right adrenal gland is borderline “flat”, measuring 0.39 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and 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 mild/moderate fluid. It measures at a normal thickness of 0.30 cm 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. Duodenum wall measures 0.51 cm. Jejunum wall measures 0.45 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 are prominent mesenteric lymph nodes visualized. A mid jejunal lymph node measures 0.61 cm. A lymph node at the ileocecal junction measures 1.2 cm in diameter. The omentum is of normal echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Mild gastric fluid distention – Findings are most consistent with a nonfasted patient, delayed gastric emptying, or a pyloric outflow tract obstruction (none observed).
- Prominent mesenteric lymph nodes – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.
- Borderline “flat” adrenal glands – Consider screening for Addison’s.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No focal lesions are visualized today to explain the vomiting and hematemesis reported. There is some fluid visualized within the gastric lumen, but no focal lesions, mass effects, etc. Ultrasound can be insensitive in picking up mucosal lesions. Additionally, some of the lymph nodes are prominent, likely reactive, but an underlying neoplastic process cannot be ruled out.

Recommend screening for Addison’s disease. If metabolic disease is thought an unlikely cause of the vomiting, consider an upper GI endoscopy to further evaluate the esophagus and stomach and obtain biopsies from these regions (additionally the proximal duodenum). If endoscopy is not possible at this time, consider empirical treatment for helicobacter and a change to a novel protein/hydrolyzed protein diet in case of food allergy/dietary intolerance.

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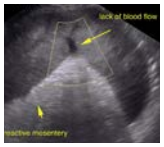
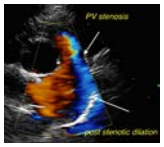
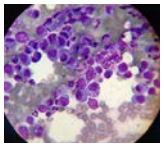
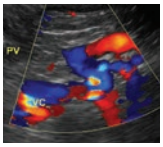

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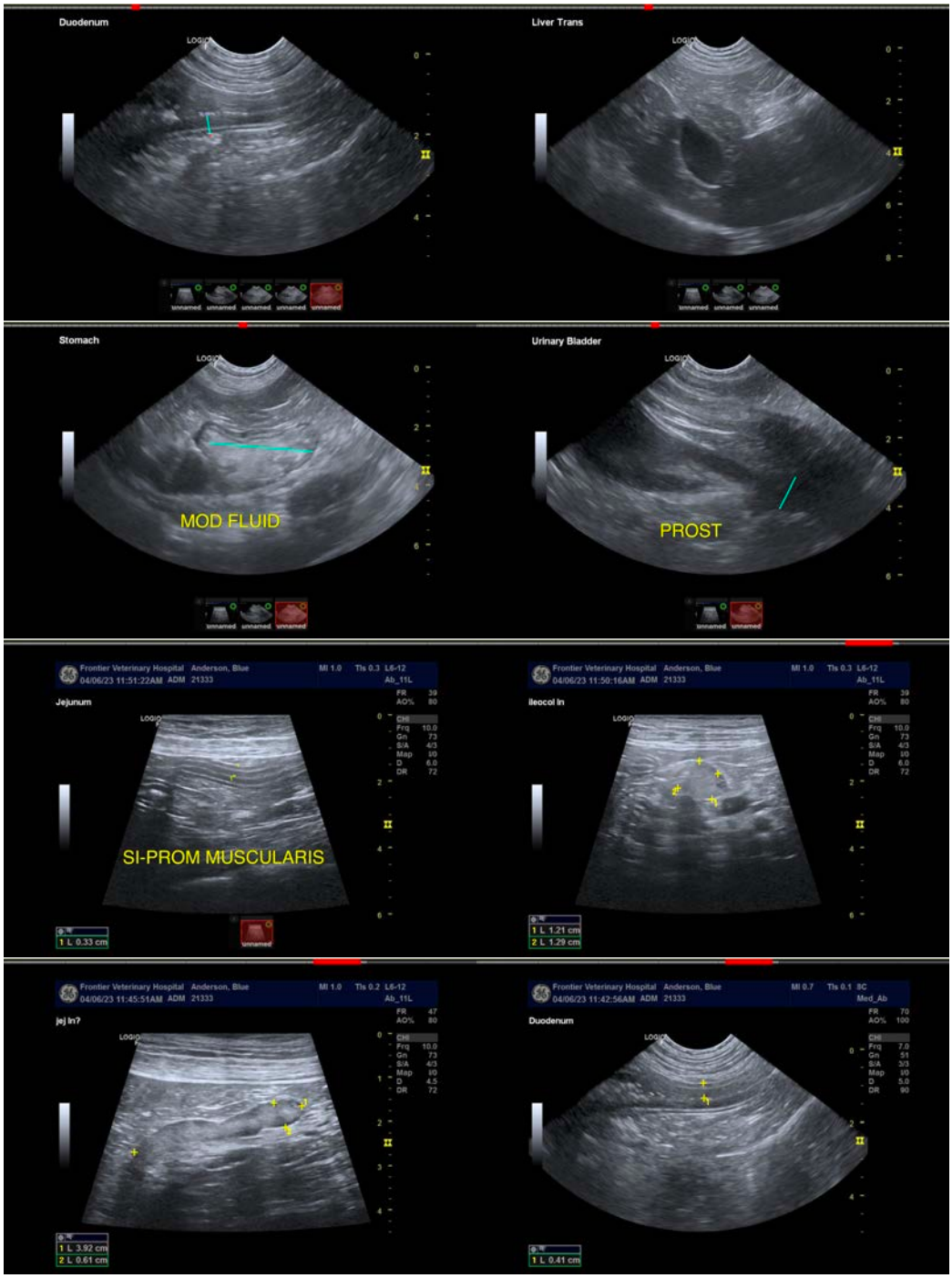

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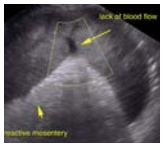
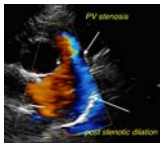
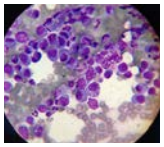
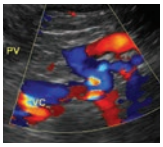

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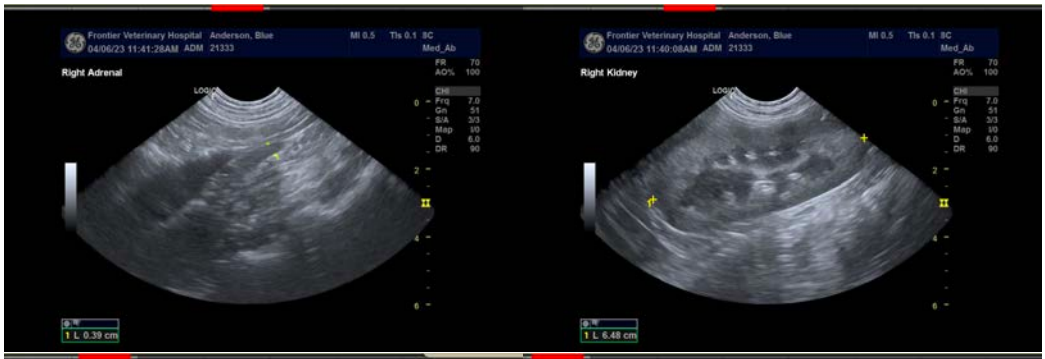

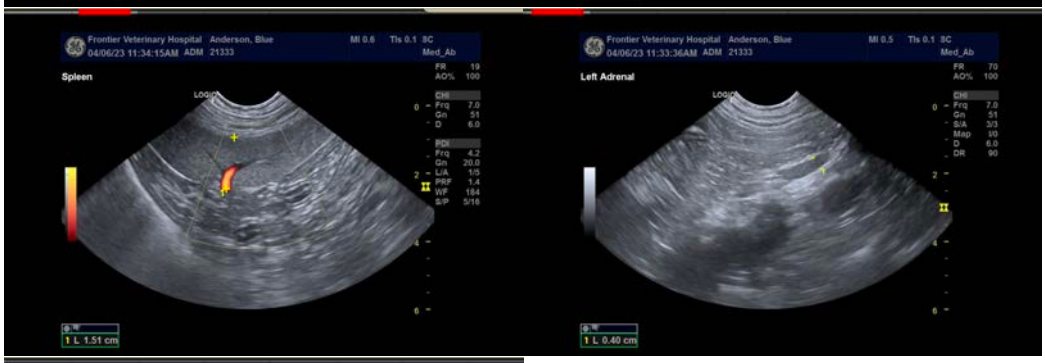

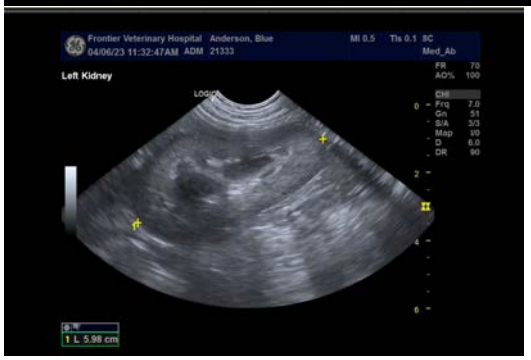

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

kathleen.sennello@sonopath.com