IMAGING PERFORMED BY

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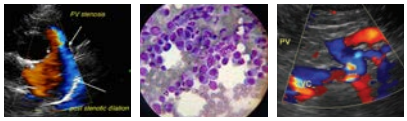

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DATE

2/2/23

PATIENT

Mira McGough

SPECIES

Canine

BREED

Australian Kelpie X

SEX

Spayed Female

AGE

2/1/21

WEIGHT

47.8 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Nacke-Horney

INVOICE

44672

PRESENTING CLINICAL SIGNS

On sat afternoon: scrapped the barnacles off the boats - patient was observed chewing on the barnacles, did drop what was in her mouth - no issues Sat night Middle of the night Sunday: pile of vomit that had barnacles in the vomit – owner concerns that they also saw dark false muscle - was not interested in eating no changes in the food or trauma Every time she was moving on monday would trigger vomiting last night started having mucoid diarrhea that was green and yellow in coloration Presented to rdvm: - Ingestion of barnacles - has been vomiting - Bw 1/30: Bands suspected, Lym 0.55 (1.05-5.1), Plt 122 (148-484), Alt did not read, Alp 1229(23-212), Tbil 4.8 (0-0.9) - Bw 2/1: Bands suspected, Lym 0.98 (1.05-5.1), Mono 2.39 (0.16-1.12), Plt 26 (148-484), Ca 7.5 (7.9-12), Na 141(144-160), K 2.9 (3.5-5.8), Cl 104, Alt did not read, Alp 867 (23-212), GGT 20 (0-11), Tbil 14.9 (0-0.9) - Lepto snap (-) - history of lepto vaccine - Tx: 1/30: IV fluids, doxycycline 100 mg 2 tab q24 for 5 days, cerenia, ampicillin - Tx 1/31: IV fluids, cerenia, ampicillin - Tx 2/1: vit K 50 mg, 1 tab q12 for 10 days, IV fuids, cerenia, ampicillin Rdvm gave dose of doxycycline on monday - owner has not given while at home - wanted to drink but not holding down and was not eating

Current Medications: Potassium Chloride, Denamarin, Vitamin B, Ampicillin, Protonix, Buprenorphine, Ondansetron.
Lab Results: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Requested by DVM.
Imaging Performed By: Andi Parkinson, RDMS

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 (6.7 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is minimal to mild inflammation, but moderate peritoneal fluid surrounding. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.76 cm). There is minimal to mild inflammation, but moderate peritoneal fluid surrounding. 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 normal in size measuring 0.76 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 in size measuring 0.63 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.

The gallbladder lumen is moderately to mildly distended with anechoc intraluminal material. The wall of the gall bladder appears thickened and hypoechoic with a hyperechoic ring surrounding. The cystic and common bile ducts are normal/not visible.

Gastrointestinal
The stomach is mildly distended with fluid. The stomach wall appears diffusely severely thickened and hypoechoic, measuring at 1.3 cm in diameter with diminished detail of wall layering. No focal mass lesions were observed. Findings are consistent with severe acute gastritis.

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 0.33 cm. Jejunum wall measures 0.27 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 prominent and hypoechoic as compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen
There is a small amount of free abdominal fluid. No lymphadenopathy. The omentum is hyperechoic in the cranial abdomen.

PRIMARY FINDINGS

- Severely diffusely thickened stomach wall with diminished layering – Given the history, the findings are most consistent with severe gastritis. Infiltrative disease (GI neoplasia, etc.) would be a distant 2nd differential.

- Thickened, hypoechoic gallbladder wall with hyperechoic tissue surrounding – The ring like “halo sign” visualized associated with the gall bladder can be seen associated with anaphylaxis, edema, portal hypertension, cholangitis etc..

- Small volume free abdominal fluid and retroperitoneal fluid.

SECONDARY FINDINGS

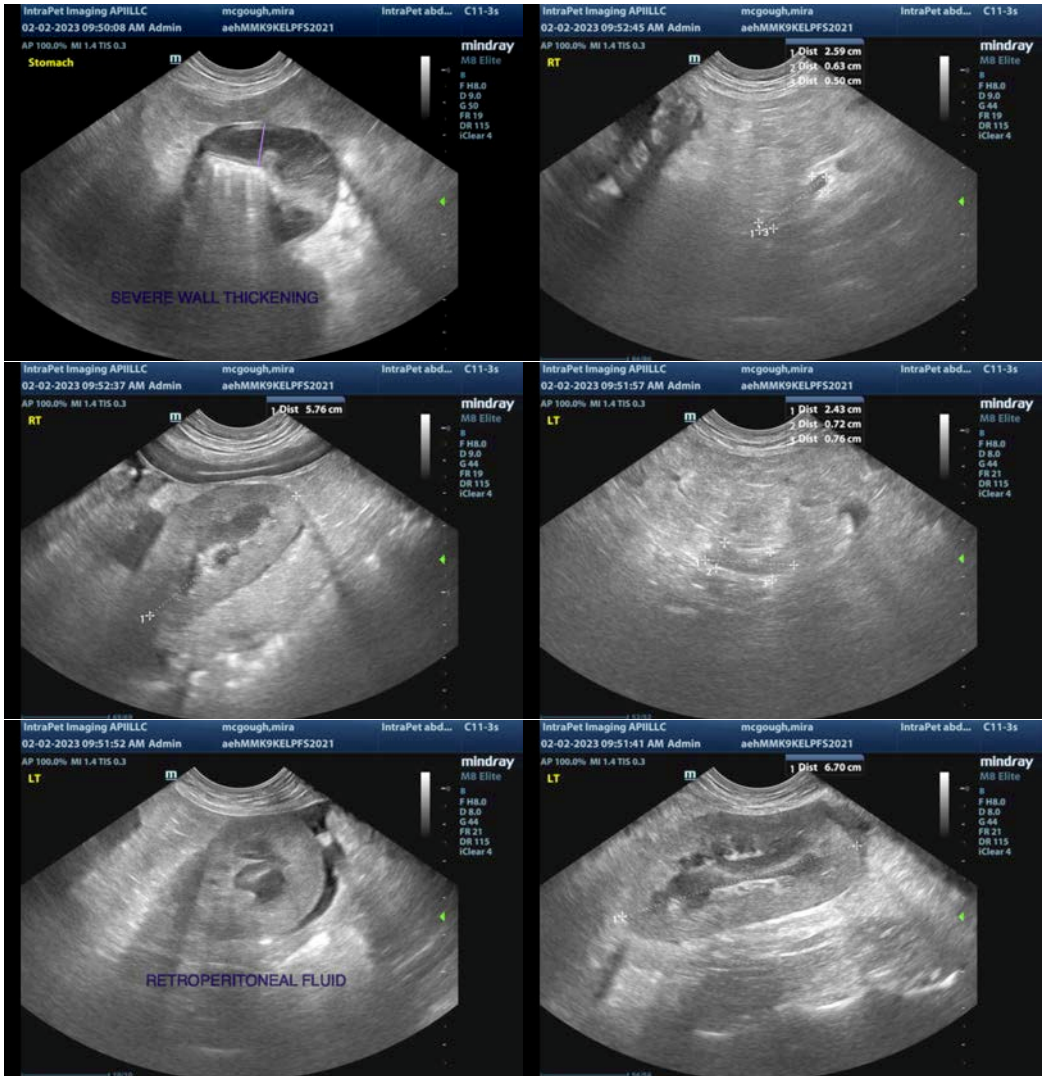
- Hypoechoic, prominent pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

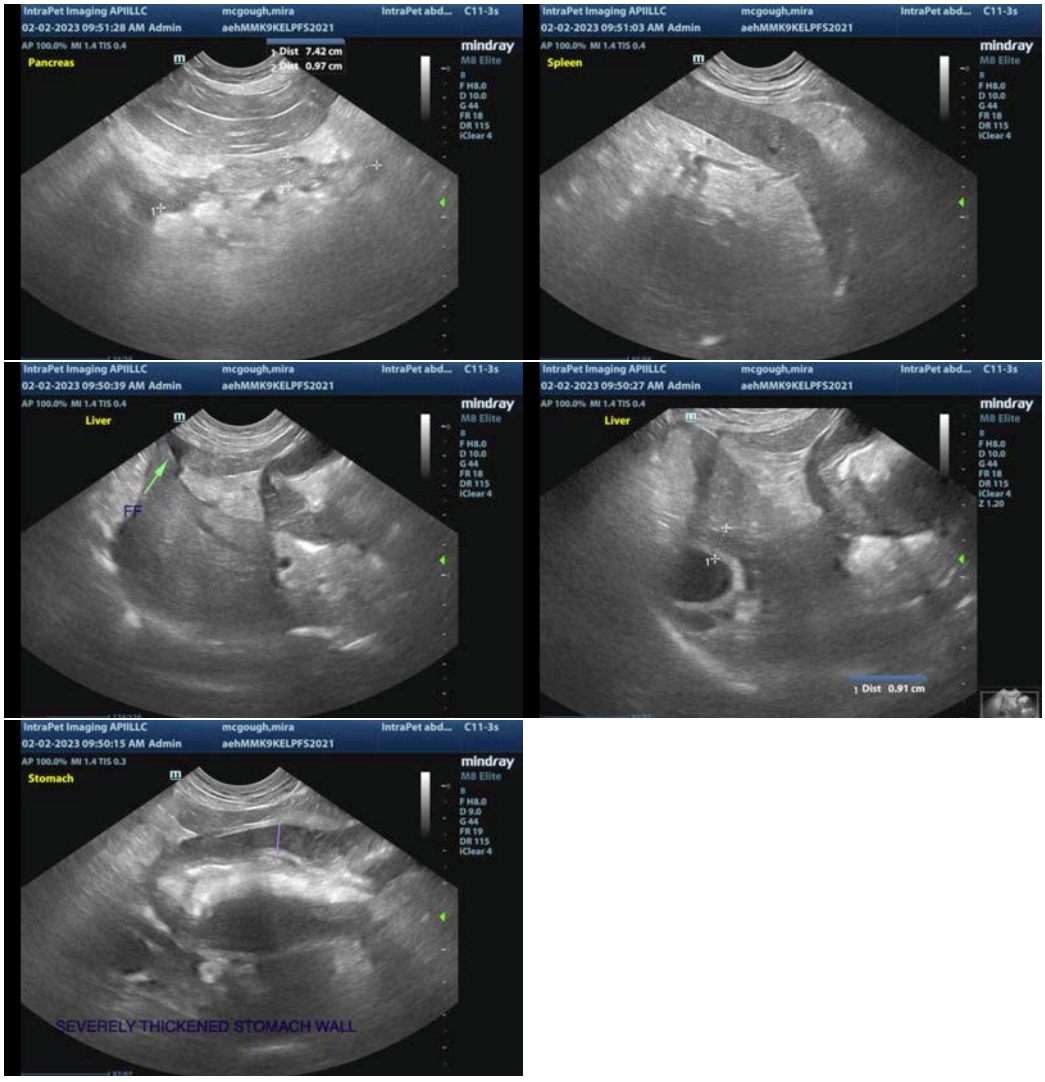
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the combination of the history, the lab work findings, and the relatively normal appearing liver with free abdominal fluid and severe gastric thickening, I'm very concerned about possible toxicity ingestion and acute hepatic failure combined with severe gastritis. Intensive supportive measures are recommended at this time. If the patient stabilizes and clotting factors are normal, a liver biopsy could be considered in the future to try and determine the degree of liver damage present. d

Other differentials to consider would be Leptospirosis, other toxicities (mushrooms, medications, etc.), much less likely infiltrative neoplasia, etc.

Attached is information distributed by the Maryland Dept. of Agriculture regarding acute hepatotoxicity caused by dark false mussel ingestion in that area.





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.

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