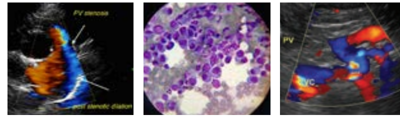
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

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DATE

2/23/23

PATIENT

Missy Young

SPECIES

Canine

BREED

Pit Bull

SEX

Spayed Female

AGE

2/19/12

WEIGHT

60.8 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Kalwa

INVOICE

45461

PRESENTING CLINICAL SIGNS

Referral from Urgent care - Vomiting, diarrhea, not eating, facial swelling, potential foreign body. History: Thursday night vomited twice, vomited yesterday, started having diarrhea Friday. Hyporexia --> anorexia. Gums swollen. Hx: seasonal allergies- receives apoquel 16 mg 1 tab SID, Dasaquin No known hx of DI- received gourmet treats. Radiographs (3 view abdomen): Gas through the colon. Gas and fluid through the small intestine with some areas of potential 2 populations of small bowel present. Stomach appears to be collapsed down and empty. The spleen is very prominent on the lateral views but no obvious mass effect noted. Liver normal to small. Kidneys not well visualized. Possible decreased detail in areas. Spondylosis in several areas along the T-L-S spine. CBC: lymph 450(L), eos 40 (L) PCV/TS = 59/6.0 Chem 17/Lytes: wnl SNAP cPL - normal UA - not performed - no sample available Abdominal ultrasound - initial interpretation: mottled liver, large spleen, area of dilated bowel with likely foreign material present. (Radiologist review pending). Images included in record Performed: - Dexdomitor + Butorphanol - IVC - 500 mL IVF bolus - Anti-sedan - Plan to transfer to AEH- sx as needed- foreign body removal, liver and spleen biopsies. According to owner: Thursday: acted normal, vomited in evening- seemed fine Friday: no vomiting, no diarrhea, not eating, drinking- didn't want owners french fries Saturday: Vomited once in the morning, started having diarrhea with blood, ate Saturday night soft food Sunday (today): no vomiting, diarrhea- went to urgent care Monday (now) 12:30am- at AEH- regurgitated once Not watched when outside, O works from home Has chewed on things in the past- plastic, squeakers, rope, grass, leaves, chicken bone- O has since watched when she chews toys or only gives hard toys On allergy medications- NO POULTRY Tuesday was valentine's day- given gourmet treats + 2 toys tore up- did throw them away

Current Medications: ampicillin, metronidazole, proviable, cerenia, omeprazole, ondansetron, sucralfate, metoclopramide, gabapentin, entyce
Lab Results: See attached.
Radiographs: stomach moderate gas dilation, no gas dilation of SIT - much improved compared to urgent care xrays no obvious GI obstruction /FB
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, 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 (6.35 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 (6.01 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 normal in size measuring 0.86 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 XXcm 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 large in size. The spleen echotexture is heterogenous and 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 heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

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 fluid. 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 uniform diameter with mild to moderate fluid distension. Wall thickness is moderately increased. Bowel loops follow a typical curvilinear path. Some areas have reduced detail of wall layering. Jejunum wall measures 0.35 cm. Duodenum wall measures 0.44 cm. Visualized peristalsis appears appropriate. There is a focal section of small bowel that appears to have pronounced wall thickening at 0.58 cm and reduced detail of wall layering as compared to the rest of the bowel. There is some fluid dilation proximal to this region, and there is concern for possible partial obstruction due to the narrowing of the lumen. Findings are concerning for infiltrative disease.

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 large, hypoechoic lymph nodes at the mesenteric root. One such lymph node is measured at 2.71 cm x 1.13 cm. The omentum is hyperechoic around the abnormal bowel and the enlarged lymph nodes.

Other
The right auricle and pericardium were visualized and were unremarkable. No obvious pathology is visualized. If cardiac function evaluation is desired a full echocardiogram is warranted.

ULTRASONOGRAPHIC FINDINGS

- 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.

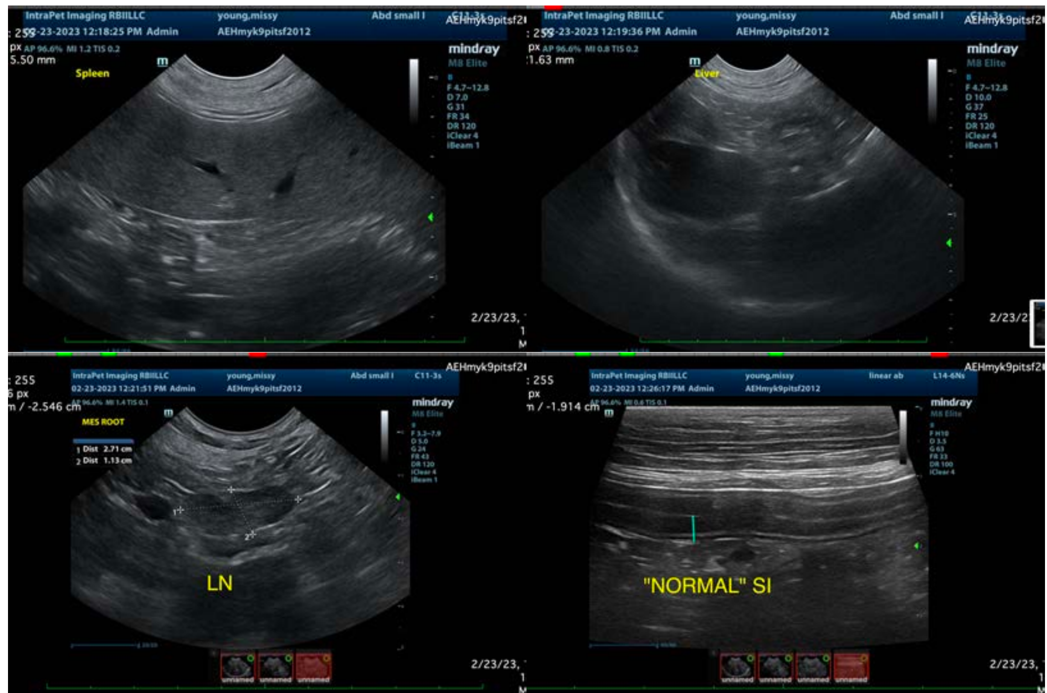
- Heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

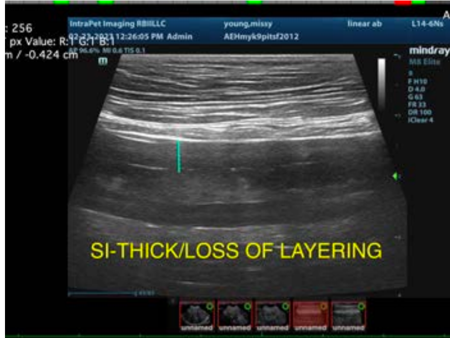
- Focal bowel thickening with loss of layering – Findings are very concerning for possible infiltrative disease. Severe focal enteritis is much less likely.

- Mesenteric lymphadenopathy at the root of the mesentery – The moderate mesenteric lymphadenopathy could be concerning for a neoplastic process, although you can see significant lymphadenopathy in some cases of autoimmune/inflammatory disease, infectious disease(tick born disease-such as bartonella, fungal infections, FIP (cats)) etc. A fine needle aspirate with cytology is recommended for further evaluation.

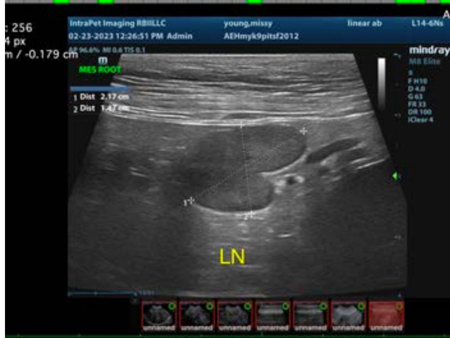
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

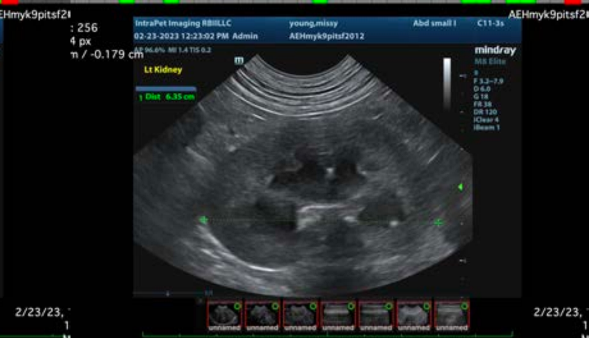
There is a section of small intestine that appears thickened with loss of layering and narrowing of the bowel lumen. This is concerning for possible infiltrative disease (round cell neoplasia, carcinoma, etc.). Focal enteritis cannot be ruled out but seems less likely, and there appears to be some proximal fluid dilation suggestive of a mild partial obstruction. Recommend a fine needle aspirate of a large mesenteric lymph node and the spleen, looking for possible evidence of round cell neoplasia. Additionally, consider 3-view thoracic radiographs. If a cytologic diagnosis cannot be obtained, then surgical biopsies may be necessary. If surgical options are not possible and cytology is non-diagnostic, then consider aggressive therapy for enteritis.

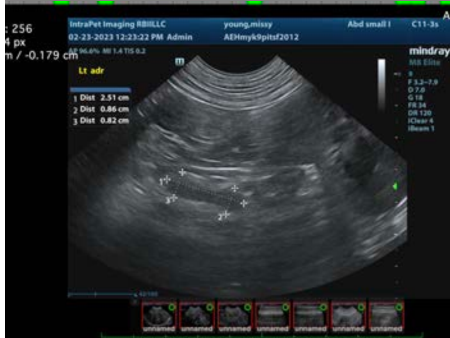


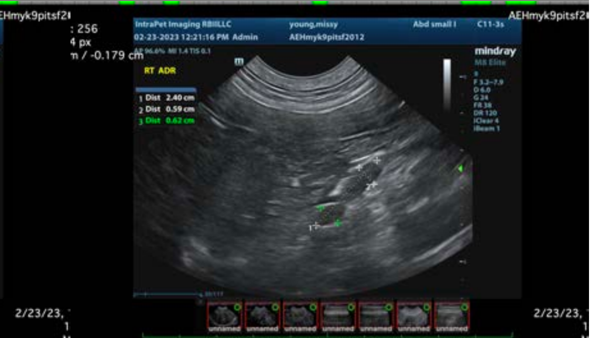

SI-THICK/LOSS OF LAYERING

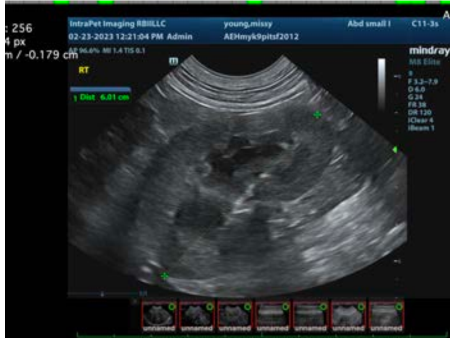
CAUD
SI-THICK/LOSS OF LAYERING


MES ROOT
LN


Lt Kidney


Lt adr


RT ADR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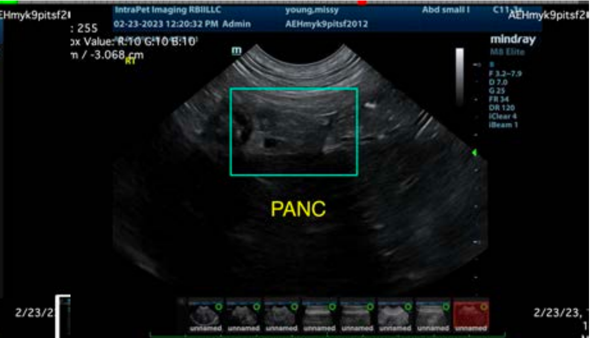
PANC

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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