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DATE PRESENTING CLINICAL SIGNS

6/22/22 P has been vomiting, decreased appetite, weight loss. P being treated for UTI. PE was otherwise unremarkable.

PATIENT

Nora Lipinski

Current Medications: Clavamox 250mg BID.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

SPECIES

Canine

BREED

Retriever X

SEX

Spayed Female

AGE

6/25/12

WEIGHT

42.7 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Stephanie Pearce
RDMS, RVT

HOSPITAL NAME

Northwind AH

REFERRING VET

Dr. Cross

INVOICE

38977

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is minimally distended with anechoic urine. The Bladder wall subjectively appears mildly diffusely thickened and irregular. The area of the trigone, ureteral papillae and proximal urethra appear free of any calculi or mass lesions. Findings are most consistent with cystitis or lack of adequate urine distention.

The left kidney has a normal shape and size (5.4 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. Corticomedullary rim sign present. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney has a normal shape and size (5.17 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. Corticomedullary rim sign present. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.68 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 0.58 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 normal to large in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. Parenchymal blood flow appears adequate, but there appears to be soft tissue evident within the splenic vessels in the region of the hilus, most consistent with a thrombus. Additionally, there are two focal discrete hypoechoic nodules visualized within the parenchyma, one measuring 1.69 cm x 1.91 cm and one measuring 1.6 cm x 2.25 cm.

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 gall bladder lumen is significantly distended. Some areas of the wall appear mildly thickened with adherent debris. There is a large amount of primarily non-organized echogenic debris. There are some small polyps developing. There is no evidence of bile duct dilation. These changes can be consistent with an early gall bladder mucocele.

Gastrointestinal

The stomach contains minimal luminal contents. 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 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. Jejunum wall measured 0.31 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 mottled 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

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

Other

A brief view of the heart was submitted. No significant pericardial effusion was seen.

PRIMARY FINDINGS

- Suspect thrombus in splenic vessels – Blood flow to the splenic parenchyma appears adequate. There does not appear to be complete occlusion.
- Two hypoechoic splenic masses/nodules – There are two non-cavitated, hypoechoic splenic nodules visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- 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.
- Large gallbladder debris with some debris adhered to the gallbladder wall and small polyps – While there is no overt surrounding inflammation or bile duct dilation, medical therapy is warranted with close monitoring.
- Medullary rim sign visualized in both kidneys – Clinical significance uncertain, can be seen in normal patients and in cases of ethylene glycol toxicity, FIP, chronic interstitial nephritis, and leptospirosis.

SECONDARY FINDINGS

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

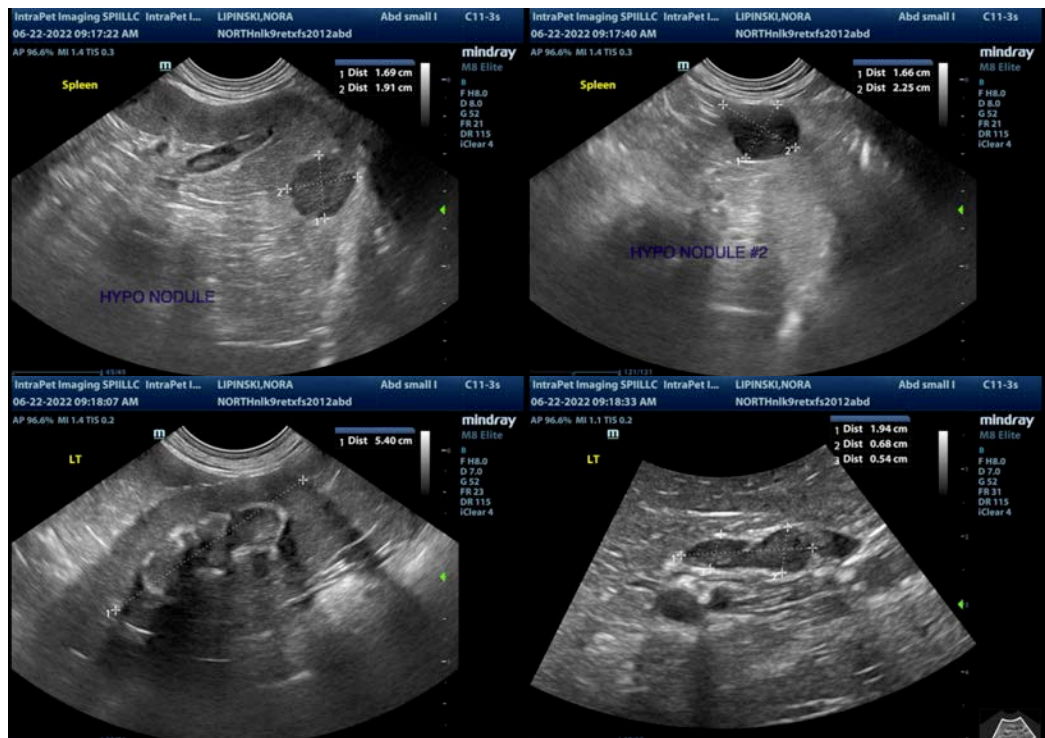
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

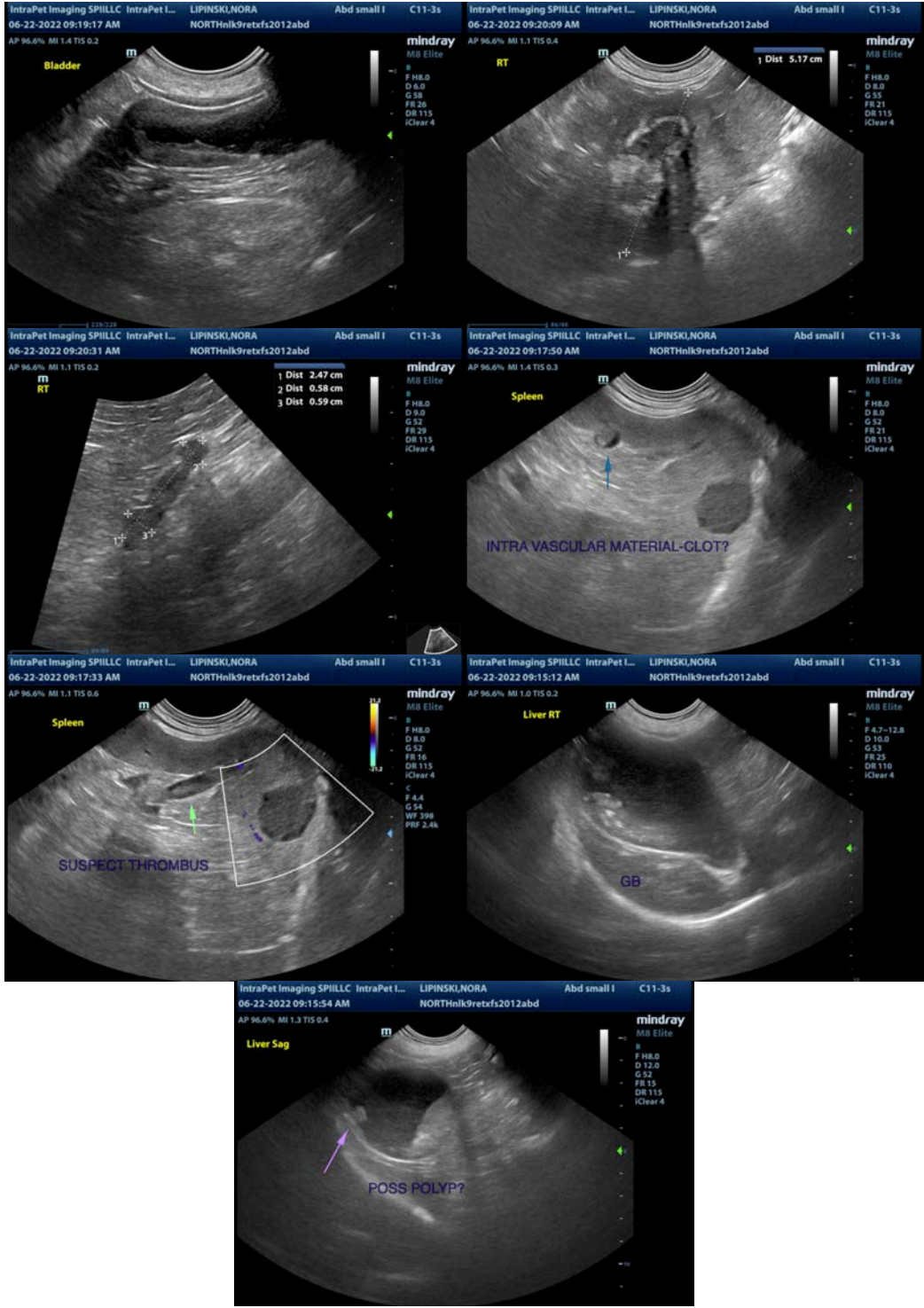
There appear to be thrombi visible in two splenic vessels as well as two large nodules/mass lesions. Based on these factors, I would consider splenectomy for both diagnostic and therapeutic purposes. Additionally, I would evaluate this pet for any conditions that cause a hypercoagulable state, such as Cushing's, protein losing enteropathy, Prednisone therapy, neoplasia, etc. No lab work was provided, so recommendations will be somewhat limited.

If a hypercoagulable state can be identified, then consider treatment for that. Post-operatively, some patients will benefit from anti-coagulant therapy, etc., but this is very individual, based on the clinical picture for your patient. Recommend consultation with a veterinary internal medicine specialist or surgeon for a plan with this patient.

Additionally, the gallbladder is distended with adherent sludge and some small polyps. You could consider initial medical therapy with Ursodiol +/- a course of antibiotics and continued monitoring with ultrasound. If there are significant liver enzyme elevations, this would also potentially be more serious. I do not feel this is an urgent surgical gallbladder, but close monitoring is warranted for progression of this lesion.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.





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