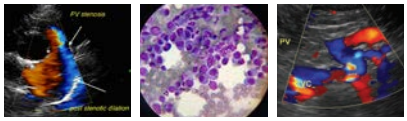
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

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

DATE

1/27/23

PATIENT

Diesel McKemy

SPECIES

Canine

BREED

Pit Bull X

SEX

Neutered Male

AGE

10/2/12

WEIGHT

95.9 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Hicks

INVOICE

44568

PRESENTING CLINICAL SIGNS

P was seen at rDVM yesterday (1/36/23) -Hx of Patient has had black tarry stools for last few days after getting into garbage. rDVM reported

- Lethargic and low-grade fever on exam, not particularly painful in belly, cbc/chem all WNL, except inflammatory leukogram present (20k),, snap cPL was normal. Xrays taken to evaluate for FB/obstruction 1. Decreased abdominal serosal detail may be associated with the patient's body condition and superposition of regional structures versus +/- mild nonspecific peritoneal effusion or peritonitis. 2. There is no evidence of radiopaque gastrointestinal foreign material, gastric outflow obstruction or small intestinal mechanical obstruction. The appearance of the spleen may be secondary to benign etiologies (e.g. splenic folding, hyperplasia, hematoma, etc.) versus neoplasia (e.g. a small sarcoma, round cell neoplasia)

Current Medications: Buprenorphine.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: STAT 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 prostate is large and 1.97 cm in height in the sagittal view. 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 (8.98 cm) with mild pyelectasia at 0.45 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 nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (8.03 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 large and irregular, measuring 0.83 cm at the cranial pole, 1.0 cm at the caudal pole, and 5.64 cm in length. It is observed in its normal position cranial to the left renal artery. It is abnormal in appearance in that there is an isoechoic nodule in the mid body of the adrenal, measuring 2.64 cm x 1.96 cm. There is no evidence of vascular invasion visualized.

The right adrenal gland is normal in size measuring 0.84 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 hypoechoic 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. There are diffuse somewhat ill-defined hypoechoic nodules throughout the parenchyma, varying in size from 0.25-1.0 cm.

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 a large amount of 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.

Some of the visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. In these regions, wall thickness appears relatively normal. Duodenum wall measures 0.41 cm with intact wall layering. In other areas of the small intestine, there is reduced detail of wall layering ad thickened bowel wall, with measurements as great as 0.71 cm in thickness, with significantly reduced detail or complete of detail of wall layering. These sections of bowel are surrounded by hyperechoic mesentery are variably fluid filled. In these regions, peristalsis appears reduced. No discrete mass lesions or obstructions are visualized. Some areas of bowel appear somewhat corrugated.

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, 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 generally hyperechoic in the mid abdomen.

ULTRASONOGRAPHIC FINDINGS

- Isoechoic nodule in the left adrenal – Left adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.

- Heterogeneous, hypoechoic liver with ill-defined nodules – 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. The nodules observed trend toward a more benign process, but underlying neoplasia cannot be ruled out.

- Large fluid distended stomach – While a pyloric outflow tract obstruction is not visualized, this would be a concern. Correlate with feeding and drinking history. Severe ileus/delayed gastric emptying would also be possible.

- Multifocal areas of bowel wall thickening with reduced layering – consider such differentials as edema, severe inflammation, and infiltrative disease. Round cell neoplasia would be a significant concern.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

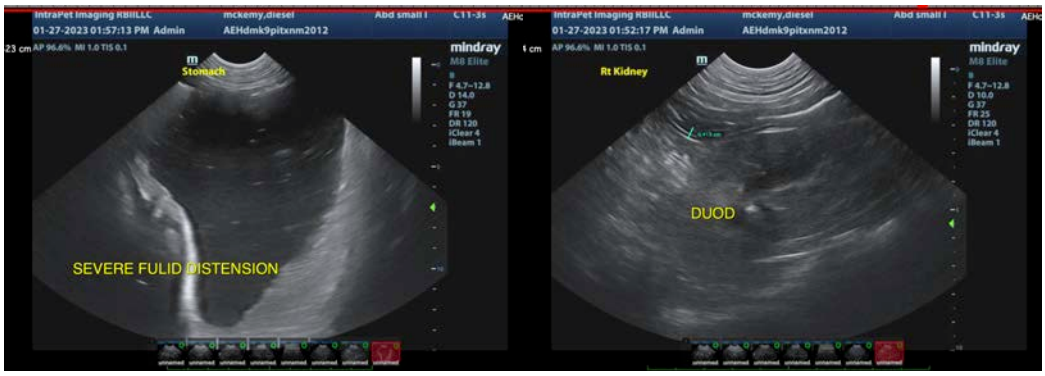
Careful evaluation of this patient's history for evidence of chronic disease would be important, as this presentation of lesions would commonly be associated with possible round cell neoplasia. If these symptoms are truly acute in nature, there is a possibility that this could be severe gastroenteritis. Additionally, the stomach is significantly dilated with fluid. No evidence of a pyloric outflow tract obstruction is visualized but cannot be definitively ruled out. Consider close continued monitoring, as this could represent severe delayed gastric emptying/ileus.

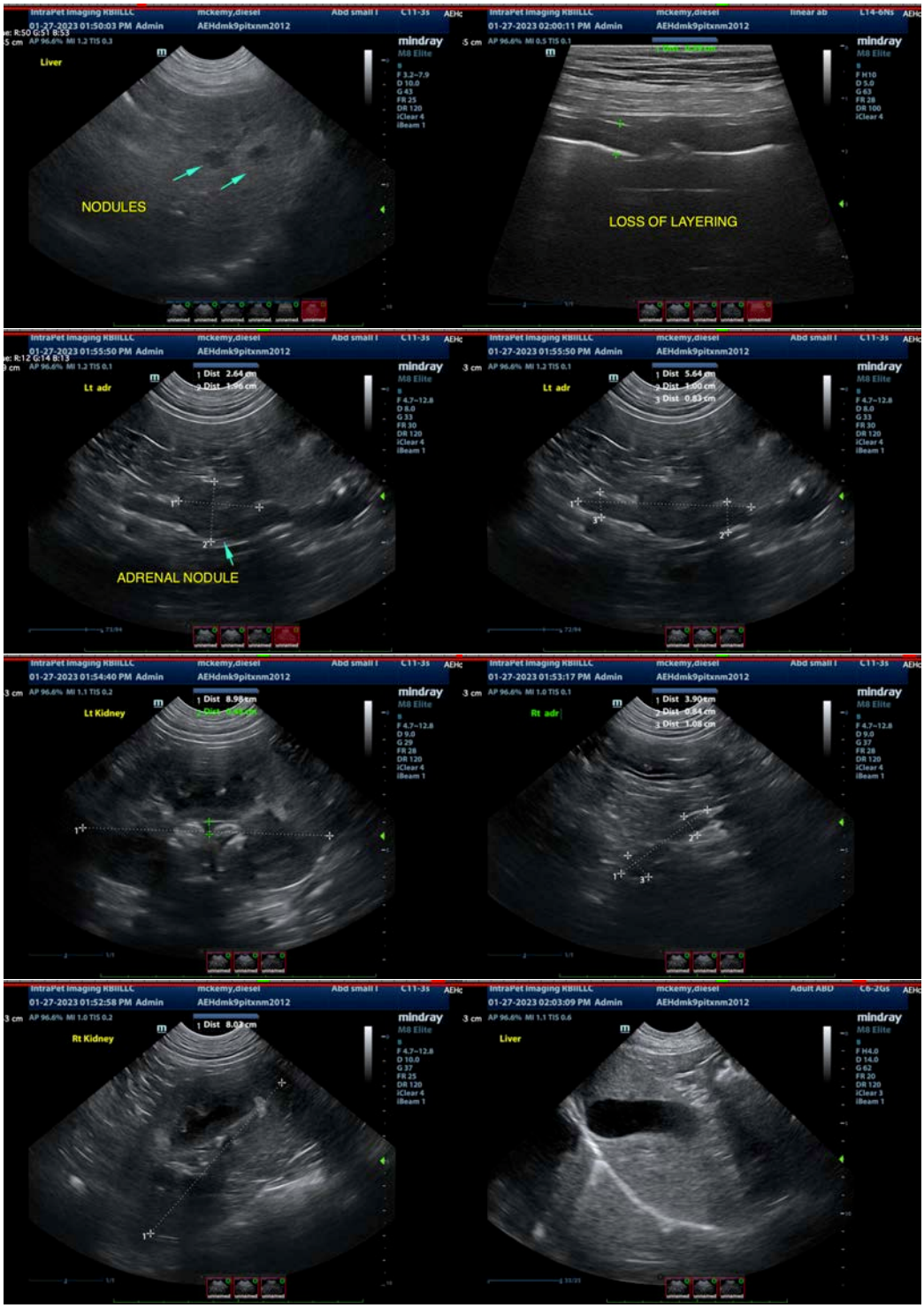
Options moving forward would include intensive medical care with close monitoring and reevaluation of the patient and small bowel ultrasonographically if symptoms are improving. Alternately, a more aggressive approach could include exploratory surgery to evaluate the pyloric region of the stomach and biopsy of the small bowel.

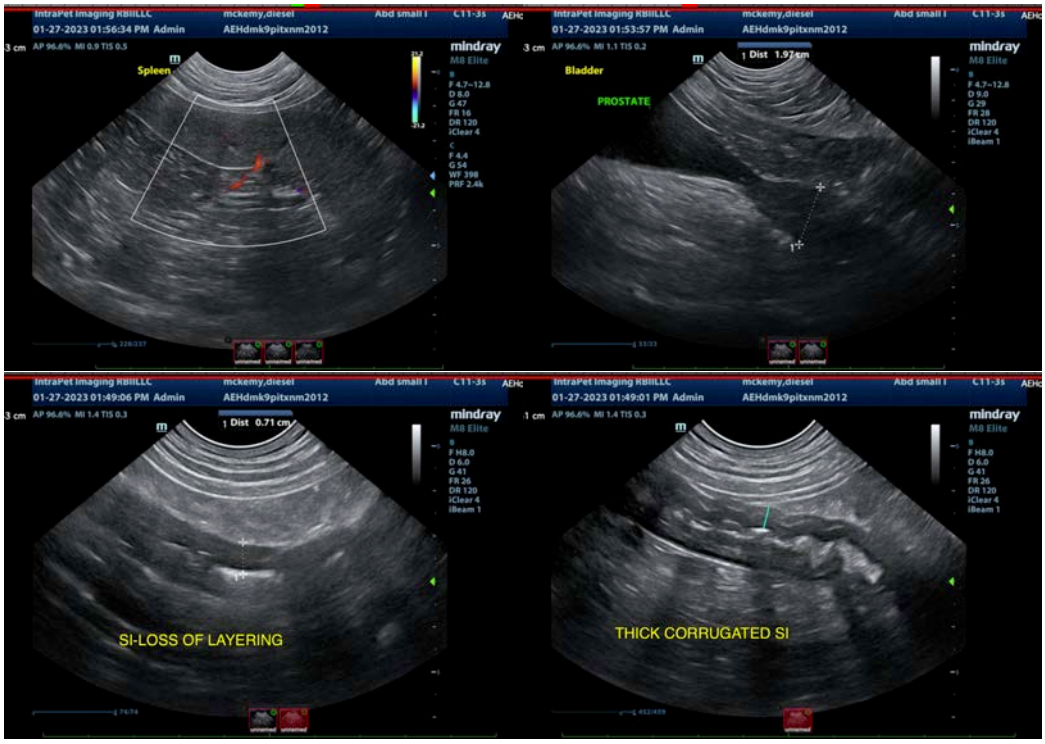
I would consider attempting medical management first prior to surgical intervention, but close monitoring of the patient for evidence of an obstruction is warranted.

There is a nodule visualized in the left adrenal gland. This could represent a benign or neoplastic lesion and could be secreting hormone or be non-secretory. Given the other concurrent issues at this time, I would recommend a blood pressure evaluation and continued monitoring of this nodule. If the patient is feeling better and recovers from its gastrointestinal issues, then consider repeat ultrasound in 6-8 weeks and consider additional workup at that time.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.




Liver
NODULES
LOSS OF LAYERING
Lt adr
ADRENAL NODULE
Lt Kidney
Rt adr
Rt Kidney
Liver



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