

**DATE PRESENTING CLINICAL SIGNS**

4/26/22

Acute onset of diarrhea after 2 episodes of vomiting. No further vomiting x several days. Diarrhea seems large intestinal. MM = pink CRT < 2 seconds, Heart and lungs = wnl, Abdominal palpation = nsf. Non-reactive, Hydration ok and appetite is good. Right hind leg lameness was after a day of significantly more activity. No palpable pain. Joint ROM =

PATIENT

Zeus Sommerman

Wnl. Owner will rest and monitor. Discussed 81mg Aspirin vs Deramaxx PRN

SPECIES

Canine

Current Medications: Metronidazole 250mg SID for 5 days.

Lab Results: Anemia.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

BREED

Fox Terrier

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Neutered Male

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.

AGE

6/29/06

The prostate is normal in size (0.85 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.

WEIGHT

15.4 Pounds

The left kidney has a normal shape and size (4.63 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

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

The right kidney has a normal shape and size (4.94 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

IMAGING PERFORMED BY

Stephanie Pearce
RDMS, RVT

Adrenal Glands

The left adrenal gland is normal in size measuring 0.61 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.

HOSPITAL NAME

Festival Vet Clinic

The right adrenal gland is normal in size measuring 0.56 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.

REFERRING VET

Dr. Lomax

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.

INVOICE

37156

Liver

The liver is subjectively normal in size and slightly irregular in shape. The parenchyma is severely heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are numerous hyperechoic nodules diffusely dispersed throughout the

hepatic parenchyma, varying in size between 0.75-1.5 cm. On the right side of the liver, there is a larger mass effect/large nodule measuring 3.99 cm x 2.42 cm.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering 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 measured 0.38 cm. Jejunum wall measured 0.28 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, 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.

ULTRASONOGRAPHIC FINDINGS

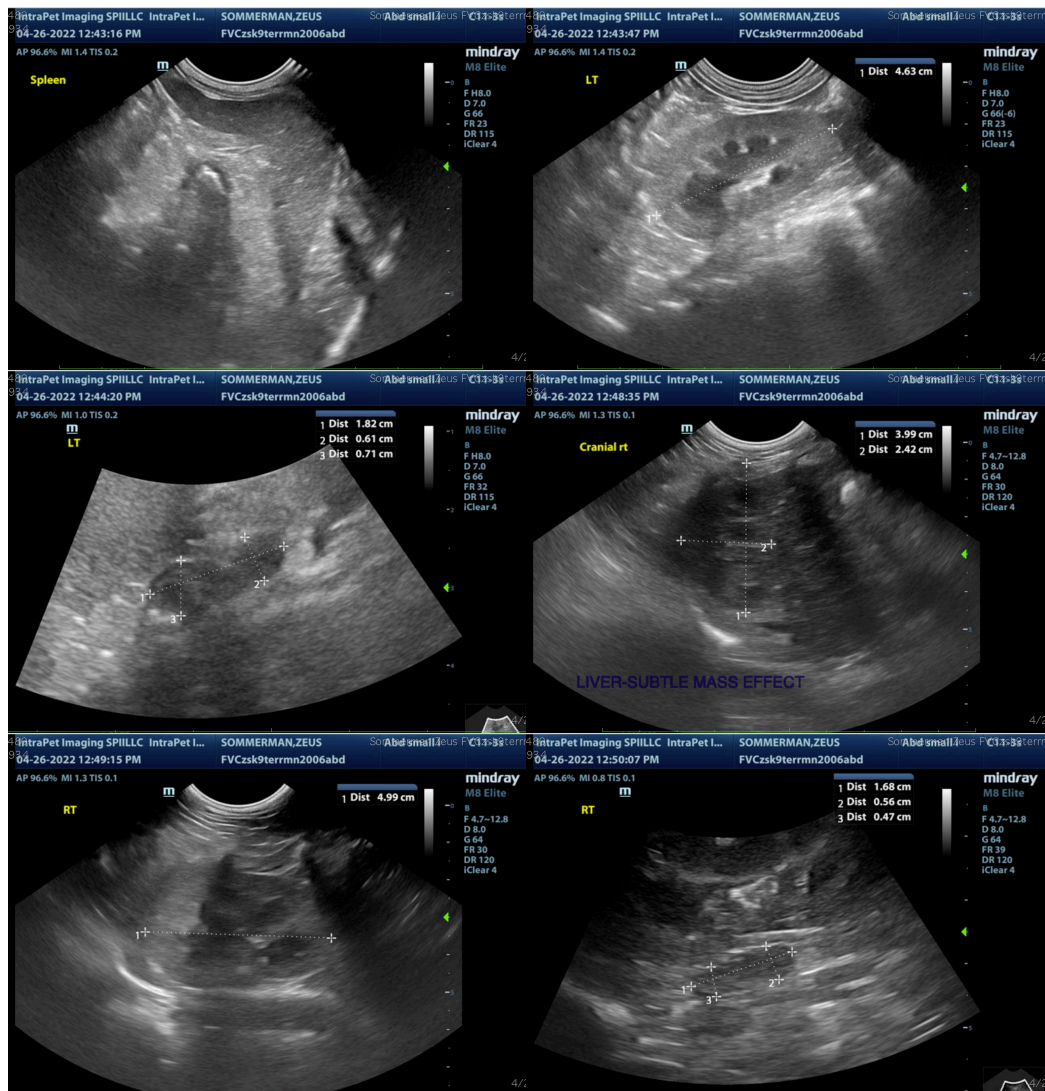
- Severely heterogeneous liver with ill-defined, hypoechoic nodules and a larger, ill-defined, hypoechoic mass effect – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. I suspect the mass effect represents a larger nodule. These changes could represent a benign or neoplastic process.
- Moderate gallbladder debris – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.
- Moderate ingesta visualized within the gastric lumen – correlate with feeding history. If the patient was adequately fasted, this could represent delayed gastric emptying or partial outflow tract obstruction (none observed).

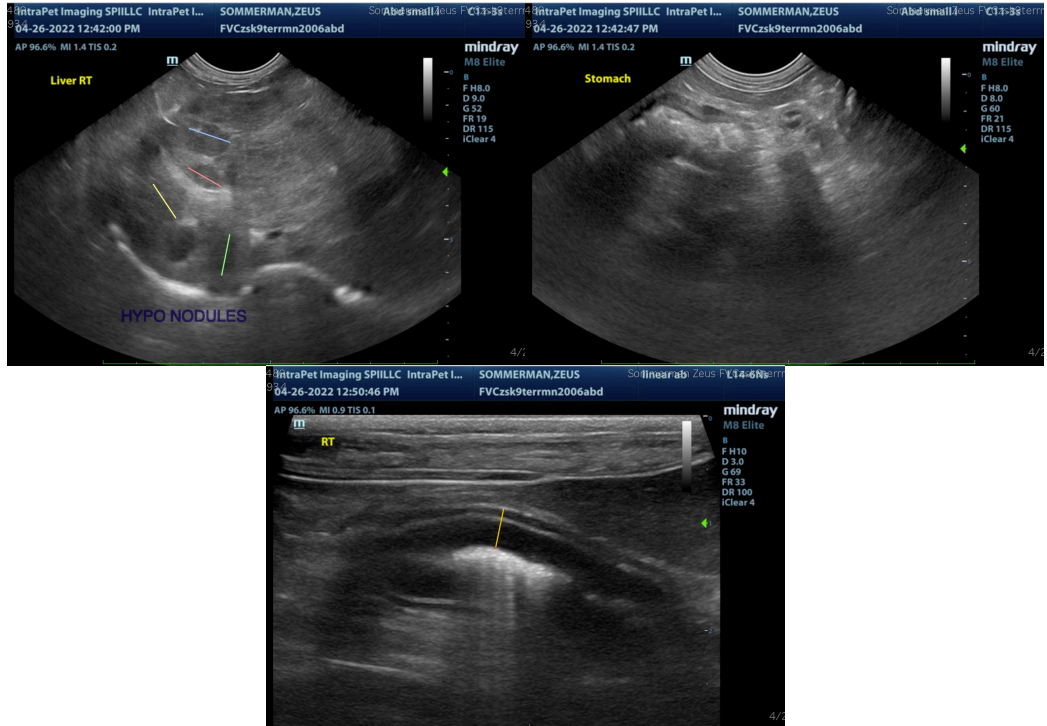
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver is large, irregular and nodular. Additionally, there is a large mass/nodule visualized. I suspect the majority of these lesions represent benign change, but the larger mass effect is more concerning. The remaining lesions described are relatively mild and possibly age related.

An obvious cause for the anemia, which has the characteristics of a possible iron deficiency anemia due to GI blood loss, is not observed. You could consider running iron levels, checking for melena, screening for and treating GI parasitism, and even an upper and lower GI endoscopy to further investigate the diarrhea, vomiting, and microcytic, hypochromic anemia.

Recommend a fine needle aspirate of the liver and 3-view thoracic radiographs. A liver function test could be considered. If surgical evaluation of the GI tract is considered, recommend a liver biopsy +/- removal of the liver mass lesion.





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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