

**DATE PRESENTING CLINICAL SIGNS**

5/3/22

P presented for diarrhea and lethargy. On PE, very icteric, weak, dehydrated. Crepitus both hinds. History of mast cell tumors, surgically removed Feb 2022. in house US concern for heterogenous liver with multiple hypoechoic nodules. No overt free fluid.

PATIENT

Thomas Knight

Current Medications: Metronidazole, Amoxicillin, Cerenia, Denamarin

Lab Results: Regenerative anemia; hyperbilirubinemia.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

SPECIES

Canine

BREED

Pit Bull X

SEX

Neutered Male

AGE

5/10/13

WEIGHT

68 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Hickory Vet Hospital

REFERRING VET

Dr. McCourt

INVOICE

37316

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 visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

The left kidney has a normal shape and size (7.18 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.

The right kidney has a normal shape and size (7.79 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.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.92 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 0.76 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. 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 large in size, and normal in echogenicity with smooth peripheral margins. 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 variably sized hypoechoic nodules visualized within the parenchyma, varying in size from 0.75-2.5 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 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. While the stomach wall appears normal, some measurements exceed 0.7 cm (0.8 cm measurement was taken). Findings could be consistent with mild 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. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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. There is a severe mesenteric lymphadenopathy present with large hypoechoic lymph nodes. A sublumbar lymph node is visualized measuring 2.13 cm x 3.81 cm. Two mesenteric lymph nodes are visualized measuring 2.6 cm and 2.4 cm in diameter. Another lymph node in the abdomen is measured at 3.28 cm x 3.34 cm. The omentum is generally hyperechoic.

Other

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

Pleural effusion is evident on both sides of the thorax, and there is ringdown artifact visualized at the level of the diaphragm.

PRIMARY FINDINGS

- Severely nodular/irregular liver – findings are concerning for a possible metastatic lesion. Recommend a fine needle aspirate.
- Mildly 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.
- Severe mesenteric lymphadenopathy – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

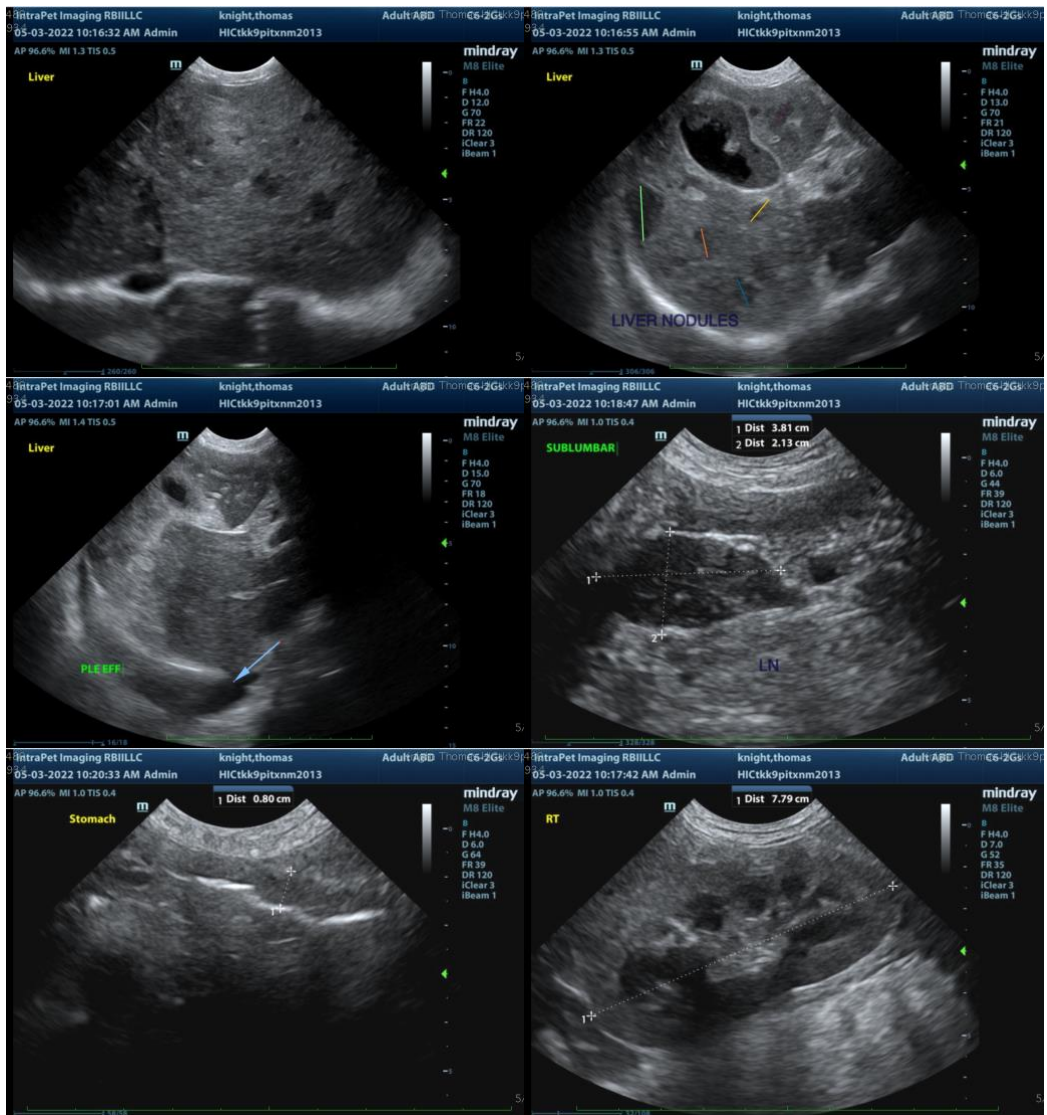
SECONDARY FINDINGS

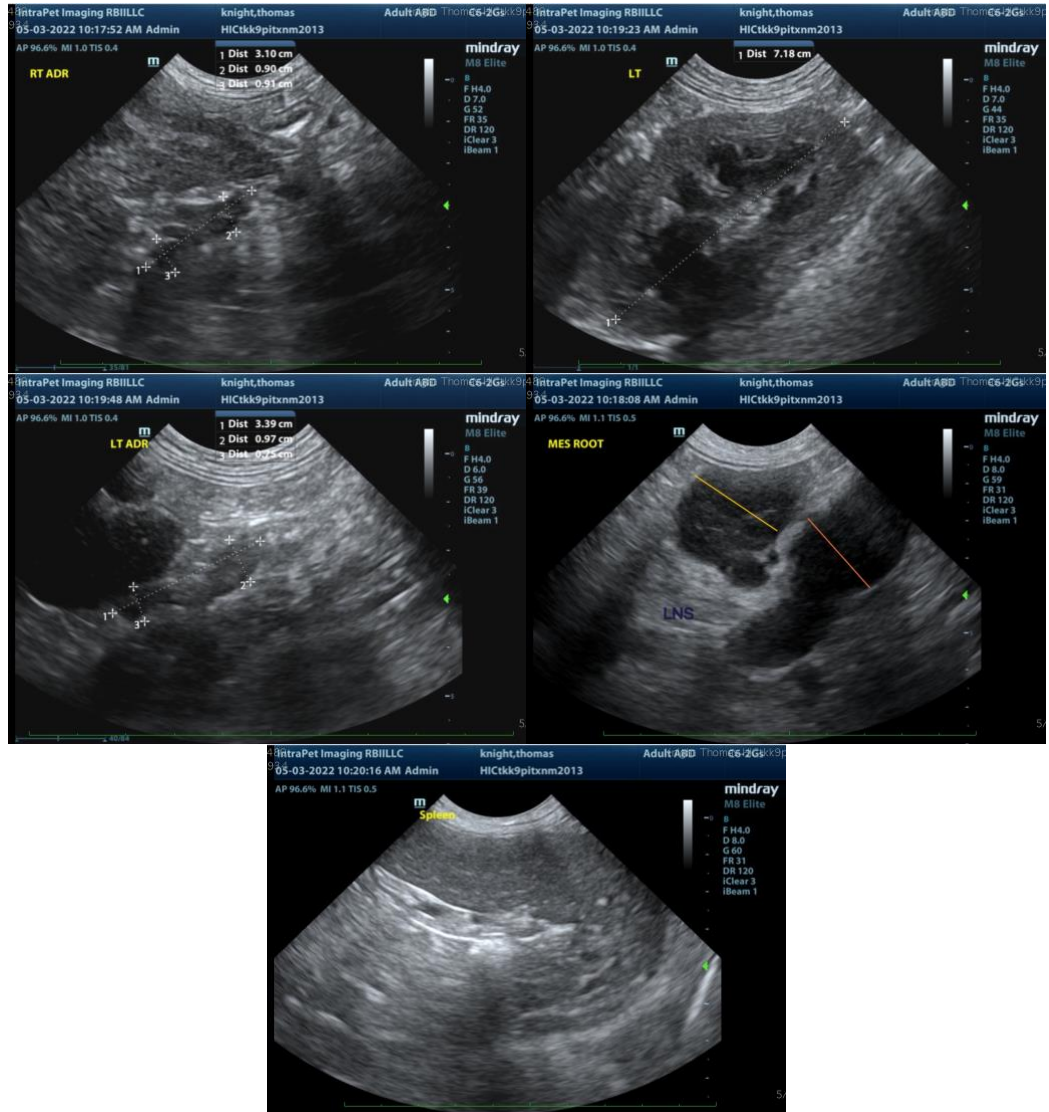
- Mild gallbladder sludge – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.
- Prominent gastric wall – No overt mass lesions observed. Findings could be consistent with mild gastritis or could be within normal limits for this individual.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver is very abnormal with too numerous to count, variably sized, hypoechoic lesions. Additionally, there are very prominent, large, hypoechoic mesenteric lymph nodes. Recommend a fine needle aspirate of the liver and mesenteric lymph nodes for cytologic evaluation, as a metastatic process is thought likely.

There is fluid evident cranial to the diaphragm on both the left and right sides of the thorax. Recommend 3-view thoracic radiographs and sampling of this fluid for cytologic evaluation and fluid analysis.





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