

**DATE PRESENTING CLINICAL SIGNS**

8.9.2023 Concern for liver/splenic bleed. Low HCT.

PATIENT

Current Medications: Started Pred last night.
 Lab Results: HCT 27.
 Date of Previous IntraPet Ultrasound: No previous.
 Sedation: Not required to complete full diagnostic ultrasound.
 Stat Report: STAT requested.

SPECIES

Imaging Performed By: Rachel Brillhart, RDMS.

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**BREED****Urinary System**

Labrador Retr

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

SEX

Neutered Male

The area of the prostate is examined without evident prostatic pathology.

AGE

10.1.2016

Left kidney is normal in size (7.63 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

WEIGHT

106 lbs

Right kidney is normal in size (7.91 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

INTERPRETED BY**Adrenal Glands**Beth Johnson, DVM
DACVIM

Adrenal glands are plump/swollen in size (Left 0.81 cm at the cranial pole / 1.15 cm at the caudal pole) (Right: 1.30 cm at the cranial pole / 0.97 cm at the caudal pole). Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

HOSPITAL NAME**Spleen**

Homeward Bound VS

Spleen is subjectively large in size with a swollen and scalloped/undulating capsular contour. Multifocal coalescing nodules are noted throughout the parenchyma. Splenic vasculature appears normal. Enhanced hyperechoic surrounding fat is noted.

REFERRING VET**Liver**

Dr. Vance

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

INVOICE

14000

Gallbladder is non-distended in size. The wall is edematous with a classic hypoechoic "halo sign". Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The area of the pancreas contains irregular hyperechoic pancreatic remodeling.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

There is no evidence of heart base or pericardial pathology noted in these images at this time. If cardiac function evaluation is desired a full echocardiogram is recommended.

ULTRASONOGRAPHIC FINDINGS

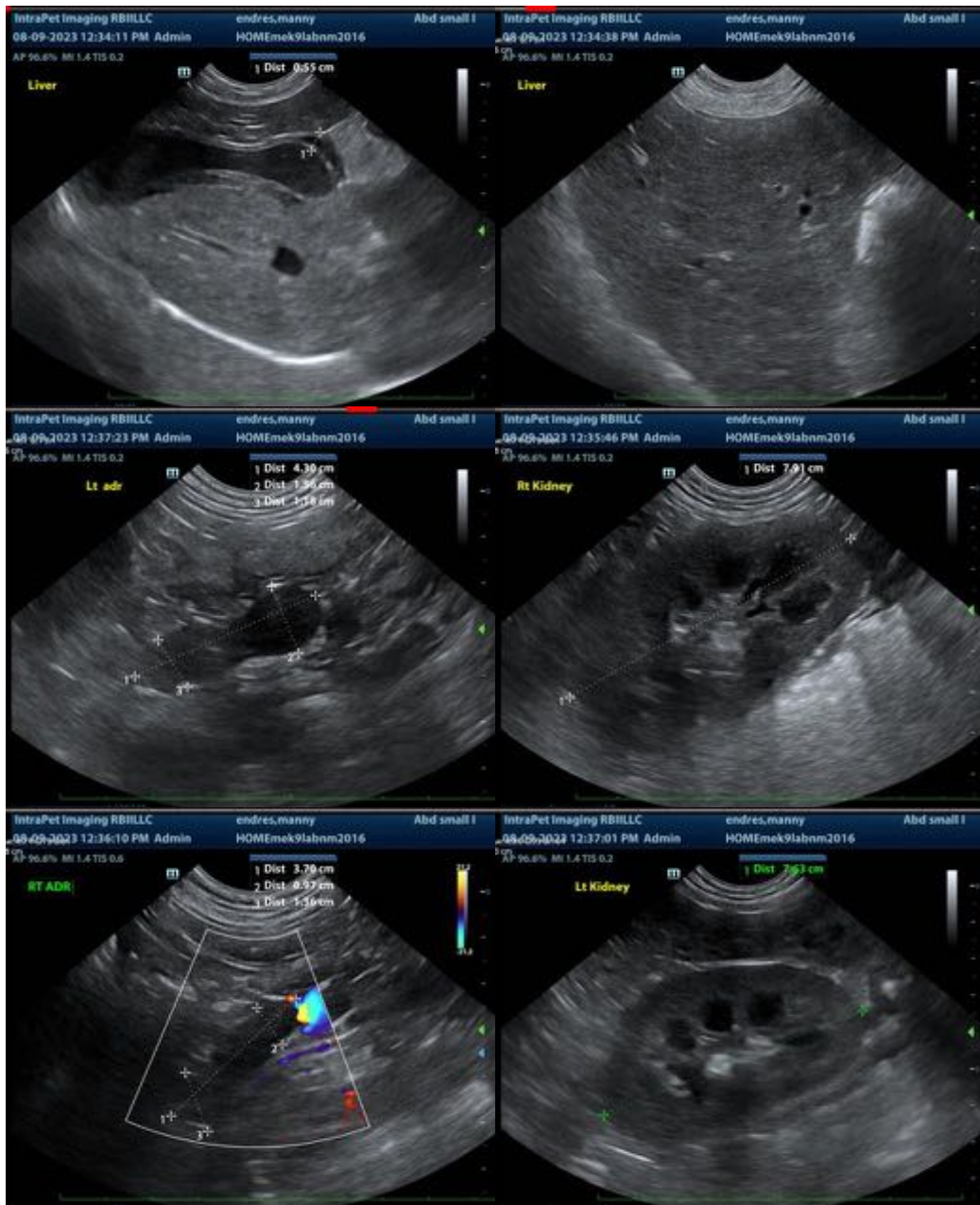
Findings

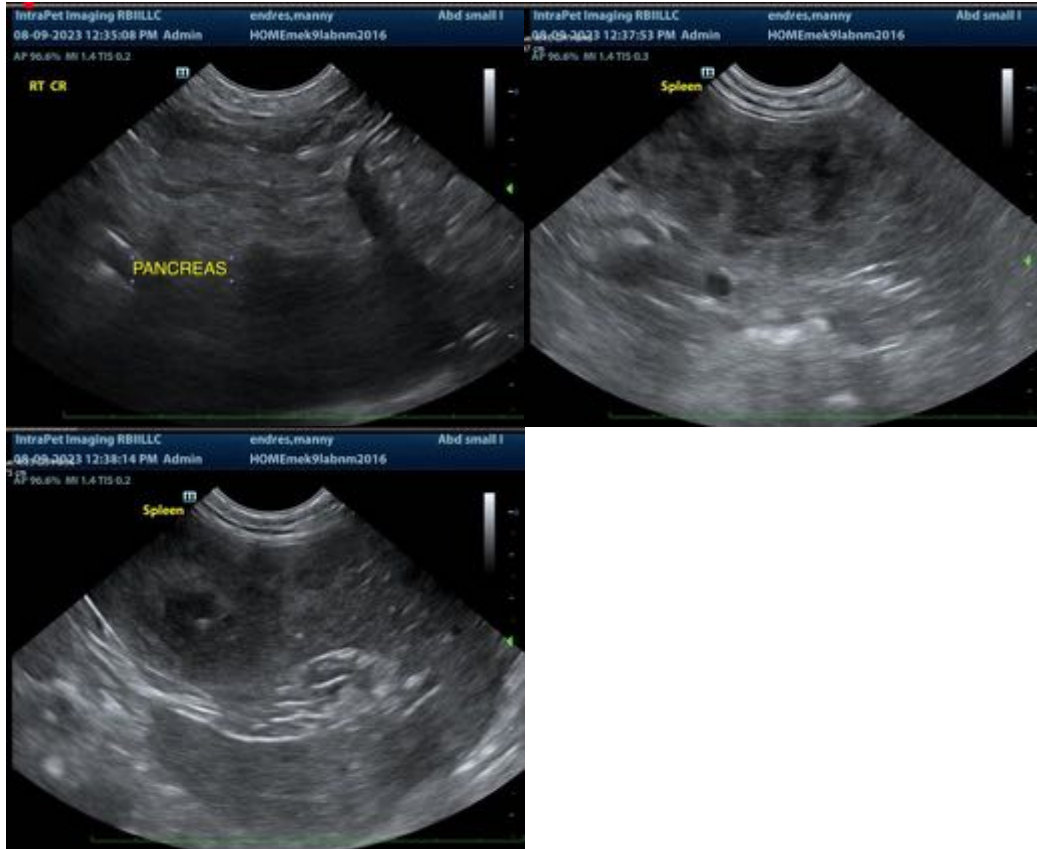
- Honeycomb Spleen – This finding is strongly suggestive of infiltrative disease such as round cell neoplasia. Benign disease cannot be ruled out but is considered less likely.
- Heterogenous Liver – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.
- The edematous “halo sign” gallbladder wall is a relatively nonspecific finding and can occur with primary gallbladder disease such as cholecystitis, as well as abdominal fluid for any reason, and occasionally secondary to immune-mediated disease.
- Bilateral adrenomegaly – consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism.
- Hyperechoic pancreas – This finding is suggestive of pancreatic fibrosis, possibly secondary to chronic pancreatitis. A TLI is recommended to rule out exocrine pancreatic insufficiency (EPI), especially if clinical signs (weight loss, diarrhea, etc.) are present.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- There is no free fluid noted in these images to suggest hemoabdomen. However, hemorrhage could be contributing to the anemia, with a bleed into the splenic nodules/masses. Alternatively, the anemia could be secondary to hemolysis brought on by the underlying infiltrative disease affecting the spleen. Recommendations include:
 1. Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.
 2. A fine-needle aspirate of the spleen is recommended (if coagulation status of the patient is appropriate).
 3. Pending results or if a diagnosis cannot be obtained cytologically, ultimately an exploratory laparotomy for splenectomy could be considered.

4. Further evaluation of the pancreatic and/or adrenal changes is not necessarily indicated until addressing the anemia and the splenic pathology, and at that time should be pursued if indicated based on clinical signs.





The information and recommendations provided are based on the images presented by the referring veterinarian. 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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