

**DATE PRESENTING CLINICAL SIGNS**

9/1/22

Second opinion from another clinic presented 2 weeks ago for anemia. Chemistries show no other significant findings. No obvious masses on AFAST, no evidence of GI bleeding per owner. Suspect IMHA; Dog has been on 2 weeks of doxycycline and prednisone with a week of azathioprine. Anemia continues to be regenerative but PCV levels are not normalizing.

PATIENT

Tic Tac Huntzberry

SPECIES

Canine

BREED

Frenchie

SEX

Spayed Female

AGE

6/18/10

WEIGHT

32.4 Pounds

INTERPRETED BYBeth Johnson, DVM
DACVIM**IMAGING PERFORMED BY**

Rachel Brilhart RDMS

HOSPITAL NAME

Everhart Vet Hospital

REFERRING VET

Dr. Notarangelo

INVOICE

40953

Current Medications: Prednisone 20 mg/day 8/13-8/27, increased to 30 mg/day, azathioprine 25 mg SID 8/20-present, doxycycline 100 mg BID 8/13-8/27

Lab Results: 8/27/22: ALT 157, ALKP 252, hct 20, 486000 /ul
8/13/22: hct 19, retic 1103 k/ul.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately 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.

The right kidney is normal in size (6.15 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.

The left kidney is normal in size (5.94 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.

Adrenal Glands

The right adrenal gland is normal in size (2.19 cm long x 0.68 cm at the cranial pole and 0.75 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (1.66 cm long x 0.55 cm at the cranial pole and 0.65 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively normal to slightly decreased or volume contracted in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Multifocal mineral foci are noted. Splenic vasculature appears normal.

Liver

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.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with 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 (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). 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 (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

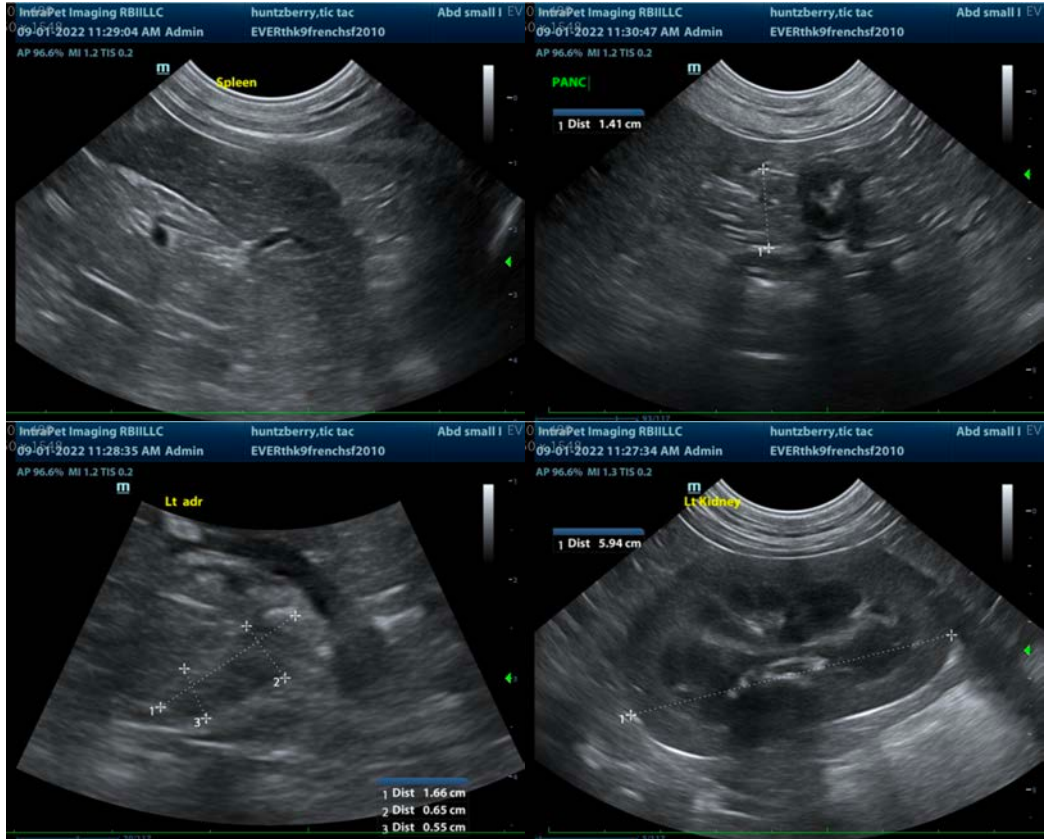
No evidence of pericardial effusion in these images.

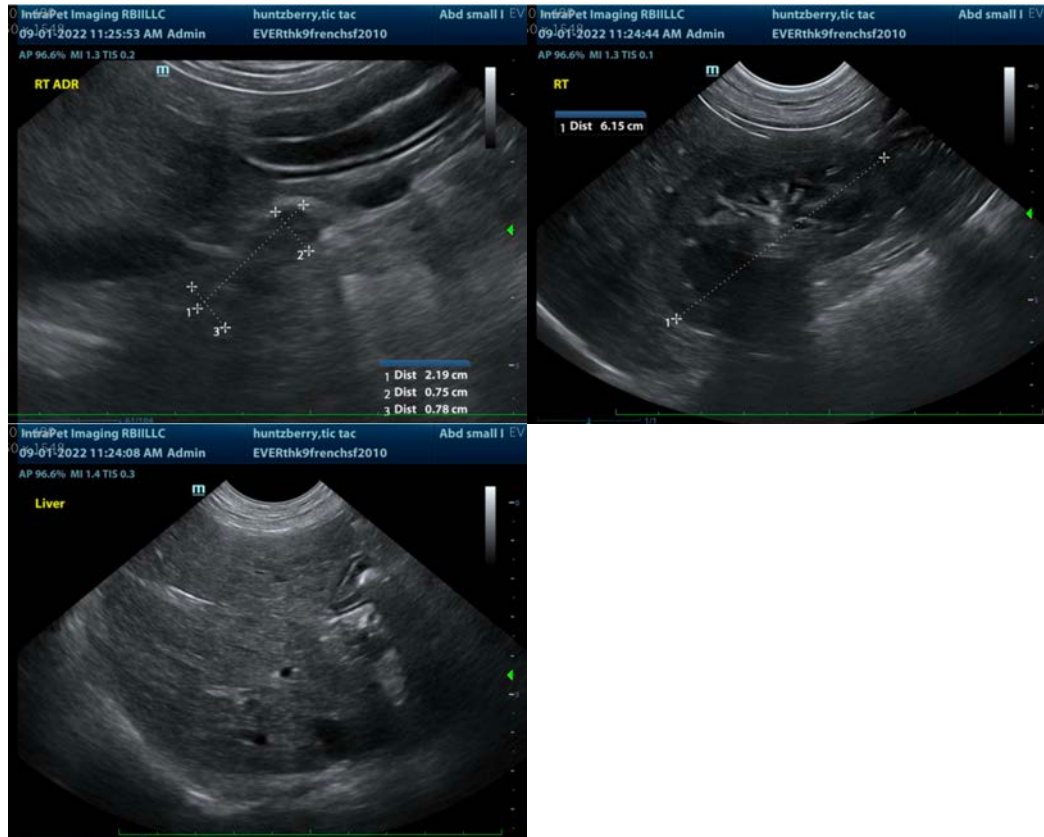
ULTRASONOGRAPHIC FINDINGS

- **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.
- **Spleen mineralization** – This is a benign change but can be associated with endocrinopathies, especially hyperadrenocorticism. This may be consistent with this patient's steroid administration for suspected IMHA.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is no obvious ultrasonographic explanation for this patient's lack of response to immunosuppression. Recommendations include adding an antacid such as Omeprazole to the therapy since the patient is receiving Prednisone, just in case of a small microulceration secondary to Prednisone. Otherwise, since the hematocrit is stable, more time on the current immunosuppressive doses may be necessary or a transition from one of the medications to a different immunosuppressant, as some patients respond better to some than others. If that approach is taken, the recommendation would be to switch from Azathioprine to modified Cyclosporin.





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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