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DATE

12/2/22

PATIENT

Saffie Perper

SPECIES

Feline

BREED

Maine Coon

SEX

Spayed Female

AGE

3/3/22

WEIGHT

9.9 Pounds

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

**IMAGING
PERFORMED BY**

Rachel Brilhart RDMS

HOSPITAL NAME

Bel Air Vet Hospital

REFERRING VET

Dr. Young

INVOICE

43150

PRESENTING CLINICAL SIGNS

Saffie was presented for barbering her tail. On physical examination she was found to have juvenile onset gingivitis/periodontitis. The owner also informed us that she has had chronic soft stool that does not hold any shape that persisted despite deworming and being on Bravecto 12 week for cats. Upon investigation of her blood work from her spay on 9/6/22, her ALT was 432 U/L. We rechecked lab. work today and her ALT was found to be 818 U/L and now was leukophilic with a mature neutrophilia, lymphocytosis and monocytosis.

Current Medications: 11/25/22: Convenia 0.5 mL SQ
Lab Results: 9/6/22 Chemistry: ALT 432 U/L. 11/25/22 Chemistry:
ALT 818 U/L (RR 12 - 130 U/L). Complete Blood Count: WBCs 21.55 (RR 2.87 - 17.02 K/ μ L), Neutrophils 11.50 (RR 2.30 - 10.29 K/ μ)
Monocytes 0.82 (RR 0.05 - 0.67 K/ μ L), Lymphocytes 8.26 (RR 0.92 - 6.88 K/ μ L). Feline Coronavirus PCR: pending

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**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The left kidney measured 4.31 cm. The right kidney measured 4.05 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.48 cm.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

Liver

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident. Portal vein to vena cava ratio was 1:1. No evidence of shunting.

Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted.

Pancreas

The **pancreas** was mildly enlarged at 1.18 cm with slight heterogeneous changes. Duct dilation noted at 0.15 cm.

Free Abdomen

Reactive mesenteric lymph nodes noted, example measured 2.28 cm x 0.88 cm.

Rapid view of the heart revealed no evident pathology. Adequate contractility and volumes. The extracardiac space was unremarkable. No evidence of thoracic pathology present.

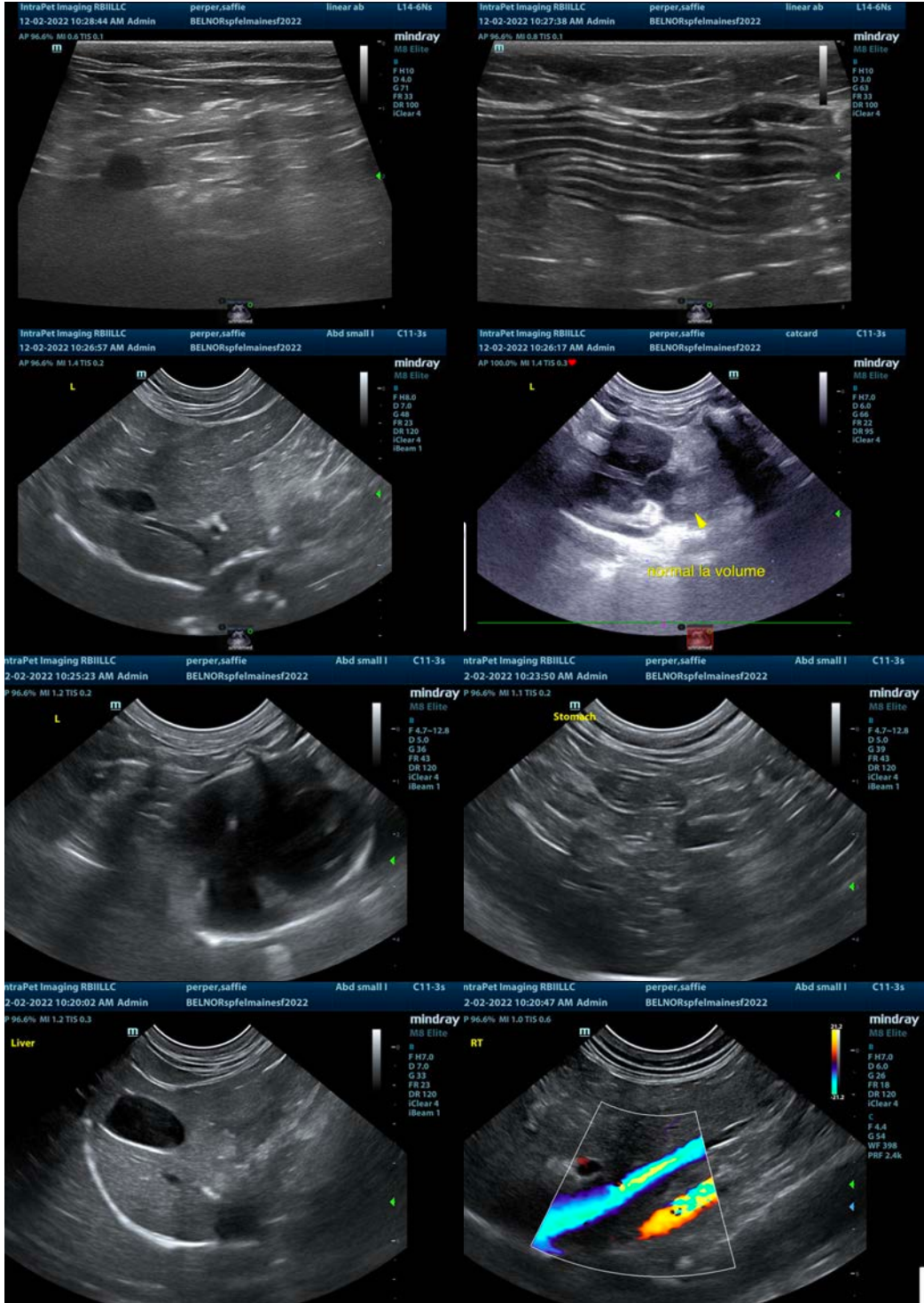
ULTRASONOGRAPHIC FINDINGS

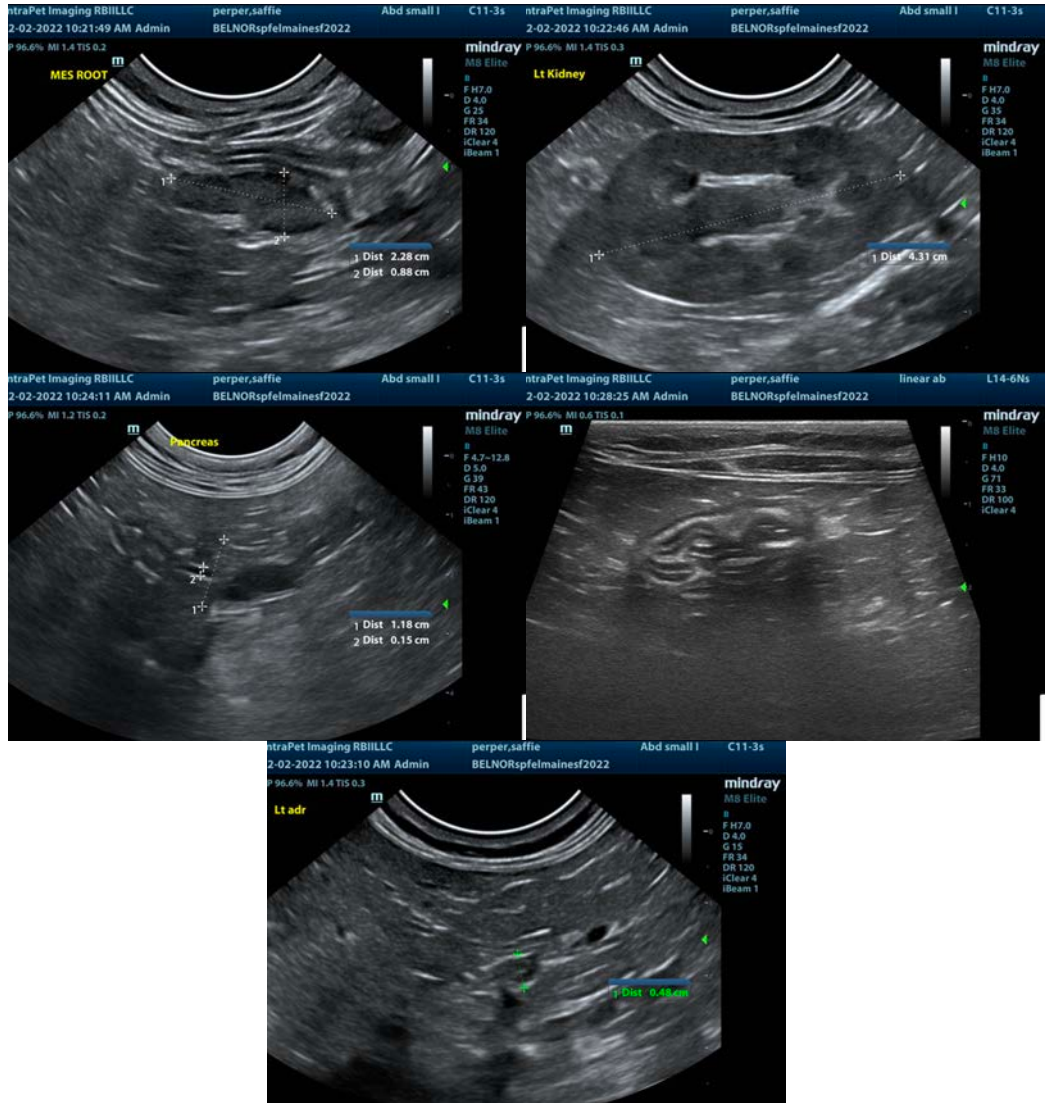
- Structurally normal liver
- Mildly enlarged, heterogeneous pancreas
- Reactive mesenteric lymph nodes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Underlying reactive hepatopathy suspected in this patient. The hepatic clinical sonographic presentation is most consistent with Reactive Hepatopathy which is the most common cause of liver enzyme elevation in dogs and cats. The presumption is that gut and other organ antigen stimuli may be causing a low-grade immune response through portal system with which the liver is reacting to causing low-grade enzyme elevations. US-guided FNA could be performed to assess if low grade lymphoplasmacytic inflammation is present that would support this theory. If FNA is performed, please ask the cytologist to emphasize the primary inflammatory cell type. Empirical treatment measures to address this issue can include diet change to hydrolyzed diet, probiotics, deworming, nutraceuticals (SAmE, Actigall...), dental exam and cleaning, and potentially antibiotics such as Clavamox. Metronidazole and Tylosin have traditionally been utilized for this purpose but new studies show that both these antibiotics can disrupt the normal intestinal bacterial flora (intestinal dysbiosis) for weeks and up to 4-6 months. Therefore, Metronidazole and Tylosin should be utilized as a last resort if other efforts have not been effective and sonographic organ appearance remains benign.

The changes in the pancreas were minor. Diet change to hydrolyzed diet may be in this patient's best interest if underlying hepatopathy is the primary issue. However, FNA of the liver would provide more information as to inflammatory cell type.





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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com