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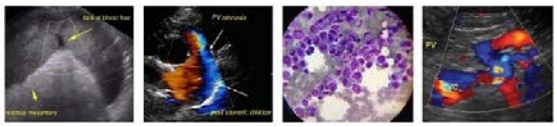


THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Huckleberry Tregaskes

SPECIES

Canine

BREED

Terrier X

SEX

Neutered Male

AGE

10 Years

WEIGHT

18.4 kg

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Erin Folk AH

REFERRING VET

Dr. Soliman

INVOICE

46403

DATE

4/5/23

PRESENTING CLINICAL SIGNS

Bloodwork in February was fairly unremarkable other than M1 elevation in ALT. Seen this week for Jaundice, ongoing hypothyroidism, vomiting, lethargy, anorexia and limited interest in drinking water. Started Baytril and Famotidine and Pedialyte. Rapid worsening of symptoms and no real improvement.

Abnormal PE/Chem/CBC/UA Results: High neuts, low lymphocytes, very high ALT, high amylase, high total bilirubin, low T4. Rads VD view showed gas in small and large intestine, opacity in cranial abd right to the stomach area and liver seemed extended into rib cage. Lateral views showed the stomach less clearly, large extended liver and gas.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is only mildly distended (empty). Visible contents are anechoic. Urinary bladder wall is unable to be fully assessed for pathology without further distension. No visible masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface. If there are urinary signs and/or concern for urinary bladder pathology, reassessment after complete filling is recommended.

Prostate is normal in size, echotexture and echogenicity for a neutered male.

The right kidney is normal in size (6.48 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 (4.97 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 (2.11 cm long x 1.5 cm at the cranial pole and 0.98 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

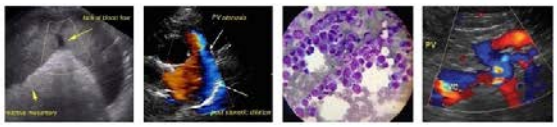
The left adrenal gland is normal in size (2.3 cm long x 0.83 cm at the cranial pole and 0.66 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively large in size with normal smooth margins. Parenchyma is normal in echogenicity with a coarse/heterogenous echotexture. Several approximately 1.0 cm slightly heterogeneous, non-capsule disrupting, primarily hypoechoic nodules are noted within the otherwise coarse parenchyma. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with markedly irregular/scalloped margins. Parenchyma is markedly heterogenous characterized by multiple poorly defined hypoechoic nodules as well as several more irregular/heterogeneous nodules including a 2.5 cm x 3.0 cm target appearing lesion with a hyperechoic center and a hypoechoic rim in the deep left liver, all within an otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.



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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 observed pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and irregular in shape with a swollen undulating contour. In the left limb of the pancreas, there is a 1.5 cm x 2.5 c discrete anechoic appearing lesion that could be an emerging cyst or abscess. Blood flow cannot be determined based on these images. Enhanced hyperechoic ill-defined surrounding fat is noted.

Free Abdomen

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

There is no apparent lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

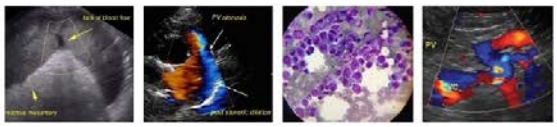
- Severe acute pancreatitis with a possible emerging cyst or abscess in the left limb
- **Heterogenous Liver –** These changes can occur with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease. However, given the marked degree of change combined with the target like appearance of the nodule/mass described above, infiltrative round cell or metastatic neoplasia must also be considered.
- **Coarse splenomegaly –** can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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.

A quantitative PLI should be considered for monitoring purposes if not recently evaluated. Fine needle aspirates of the liver and spleen could be considered if patient's coagulation status is appropriate, or, given the severe pancreatitis, the pancreatitis could be treated first, and the liver and spleen monitored for changes/improvement/progression, etc.

In the meantime, medical management of pancreatitis with anti-emetics, gastroprotectants, appetite stimulants or nutritional support as needed, pain management, broad spectrum antibiotics, and fluid



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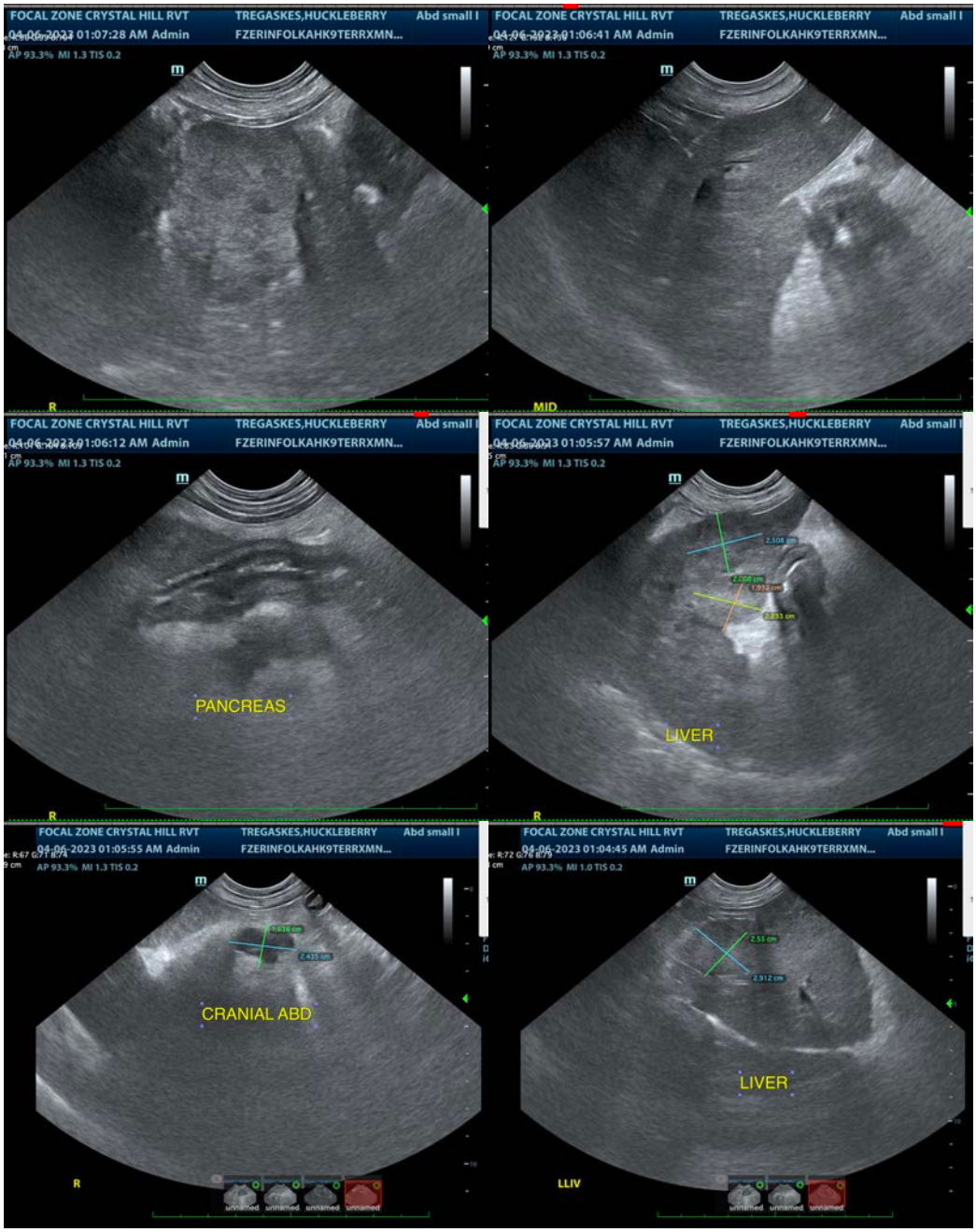
therapy is recommended. If possible, a fresh frozen plasma transfusion and hyperbaric oxygen therapy (HBOT) could be beneficial. Monitoring of the pancreas with power doppler is recommended to identify possible necrosis as well as other potential sequelae such as abscesses, etc.



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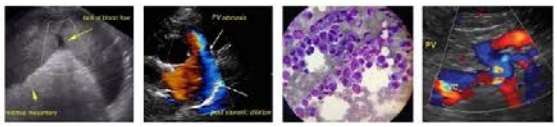

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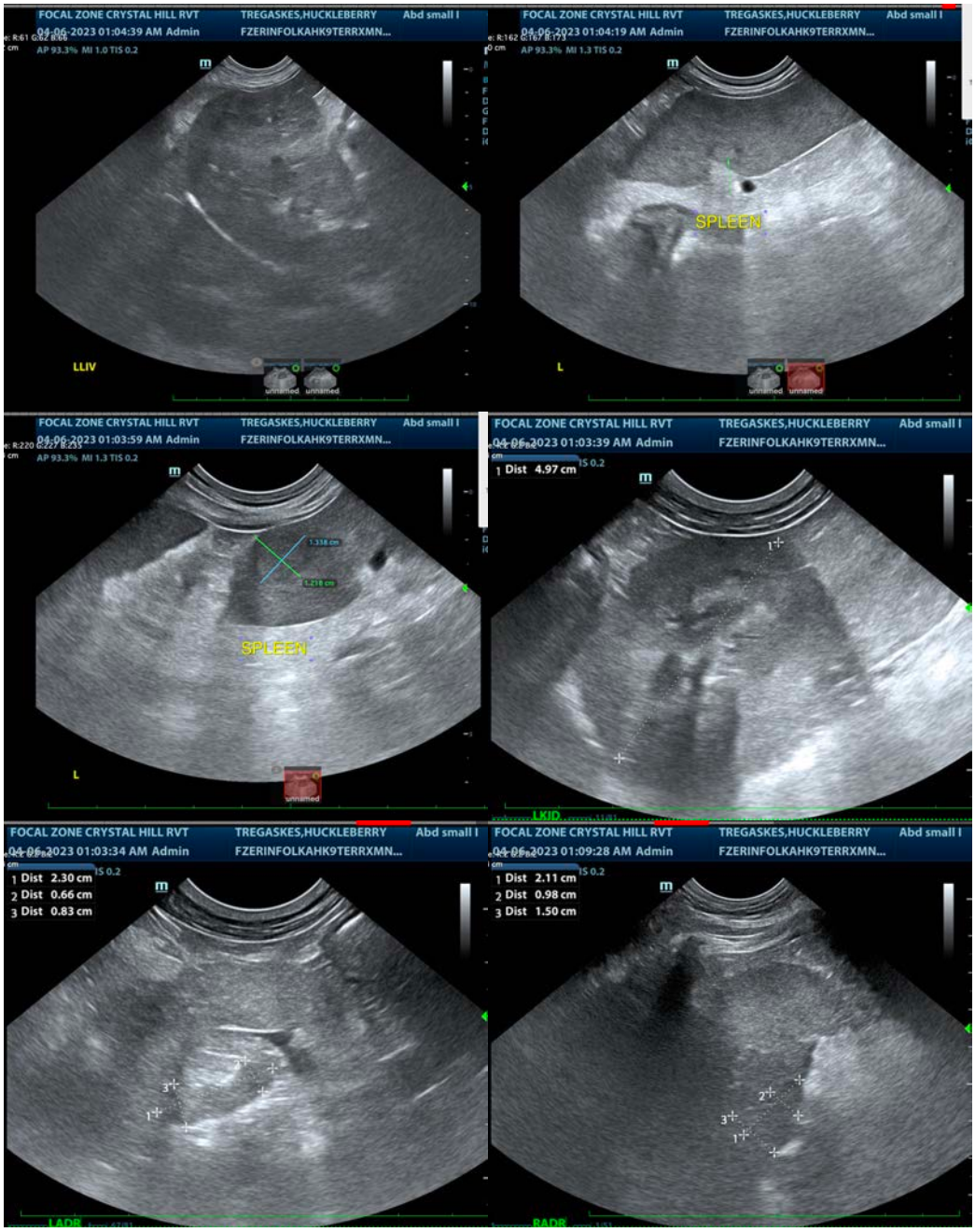

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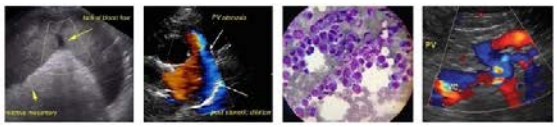

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM, DACVIM
Beth.Johnson@sonopath.com