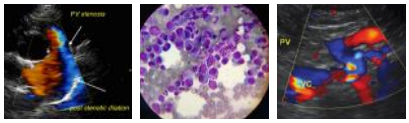
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE
9/19/22

PATIENT
Anna McNeil

SPECIES
Canine

BREED
Yorkshire Terrier

SEX
Spayed Female

AGE
8/29/08

WEIGHT
3.4 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

HOSPITAL NAME
Eastern AH

REFERRING VET
Dr. Wu

INVOICE
17381

PRESENTING CLINICAL SIGNS

History: Patient presented for ~1 week of hyporexia. Was diagnosed with severe periodontal disease and right umbilical hernia. Abdominal radiographs and radiographs were unremarkable. Patient was sent home on cerenia and entyce. One week later, patient presented for vomiting and diarrhea.

Current Medications: Cerenia, Entyce, Proviable
Lab Results: mild hyperglobulinemia.
Radiographs: diffusely distended bowels.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

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.

Left kidney is normal is size (2.97 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 or infarcts observed. Non-obstructive areas of mineralization/nephroliths are noted.

Right kidney is normal is size (3.41 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 or infarcts observed. Non-obstructive areas of mineralization/nephroliths are noted.

Adrenal Glands

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The left adrenal gland measures 1.84 cm long x 0.39 cm at the cranial pole and 0.64 cm at the caudal pole. The right adrenal gland measures 1.75 cm long x 0.51 cm at the cranial pole and 0.73 cm at the caudal pole.

Spleen

Spleen is subjectively normal 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. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

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 visible stomach wall is normal in thickness and layering. The stomach is moderately distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. However, given the reported history of fasting, delayed gastric emptying could be considered. Soft (cloth) fluid absorbing foreign material is considered less likely but cannot be definitively ruled out.

If clinical signs are consistent (vomiting, etc.), recommendations include supportive medical care, 24 hours fasting and re-image.

The visible small intestines are normal in wall thickness and layering. Hyperechoic mucosal fogging or speckling is noted. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine 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.

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.

Other
Ringdowns noted at the level of the diaphragm. In the provided thoracic ultrasound images, there is lung consolidation caudally, bilaterally, resulting in hepatization of the lung lobes. Adequate blood flow is noted in the consolidated area.

ULTRASONOGRAPHIC FINDINGS

- Caudal lung consolidation with adequate blood flow, which makes lung lobe torsion or necrosis less likely and makes primary differentials consolidation caused by fluid, pneumonia, or potentially nodules (either benign or malignant).
- 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 hepatomegaly – This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible but considered less likely.
- Mucosal speckling – Mucosal speckling is often present with inflammatory bowel disease (IBD). It is not specific for type or severity of disease. Mild speckling change can occur as a normal patient variant in the post-prandial state.
- Pancreatic age-related remodeling – Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.
- Nonobstructive nephrolithiasis bilaterally

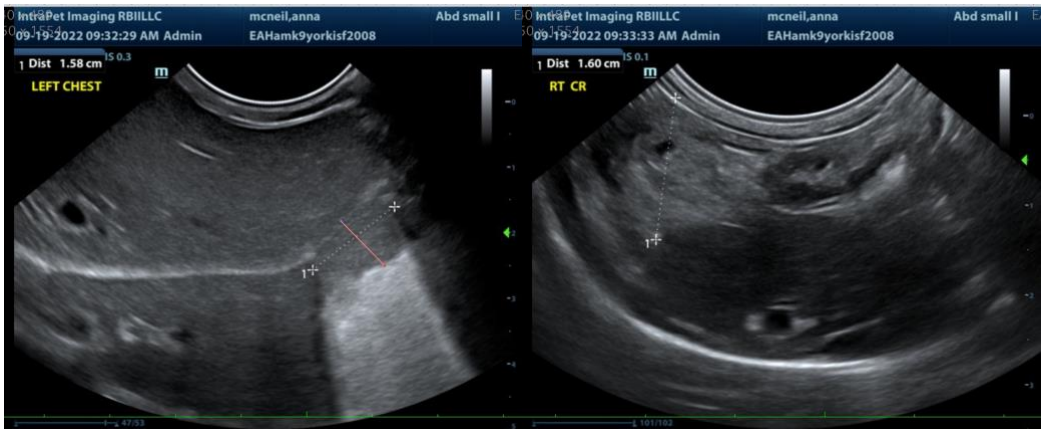
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

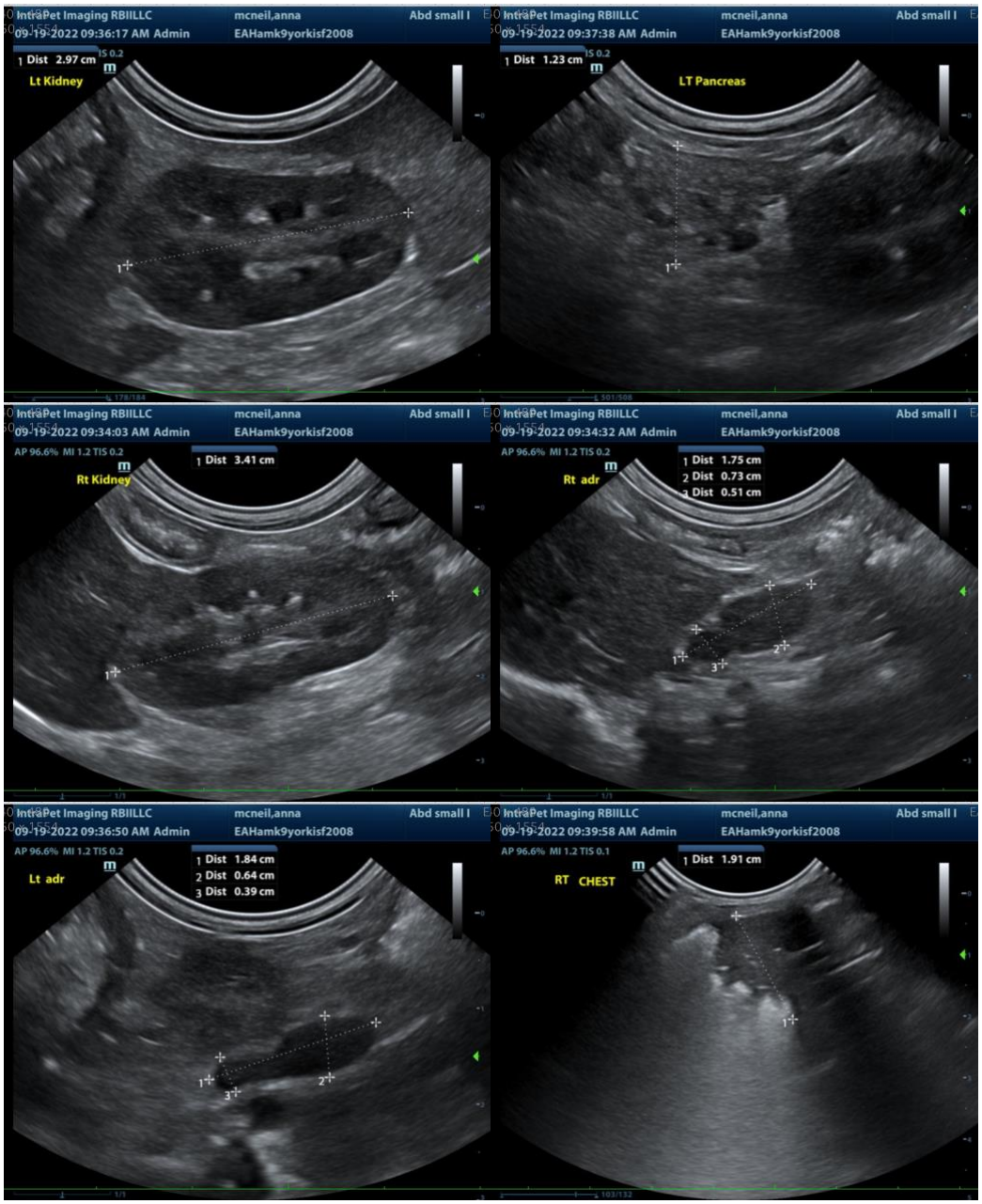
Given the thoracic changes noted in this study, three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated. If pulmonary nodules are suspected on the met check, a thoracic CT scan may also be warranted.

A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

The adrenal gland and liver changes described above can be seen with hyperadrenocorticism, and if clinical signs of hyperadrenocorticism, such as polyuria/polydipsia, etc. are present, then testing could be considered in the form of a low dose Dexamethasone suppression test. However, inappetence is not typically associated with hyperadrenocorticism and testing for hyperadrenocorticism should not be pursued when a patient is sick/ill with another problem, as this patient appears to be. Therefore, any further adrenal testing should be postponed until the pulmonary changes, inappetence, etc. have been addressed and if/when clinical signs of hyperadrenocorticism develop. A blood pressure is recommended, however, if not recently evaluated, as is a urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

In the meantime, in addition to supportive/symptomatic medical management of the gastrointestinal signs with antiemetics, gastroprotectants, appetite stimulants, probiotics (for the diarrhea), etc., broad spectrum antibiotics are recommended to address possible aspiration pneumonia, secondary to the vomiting.

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1 Dist 2.97 cm
Lt Kidney
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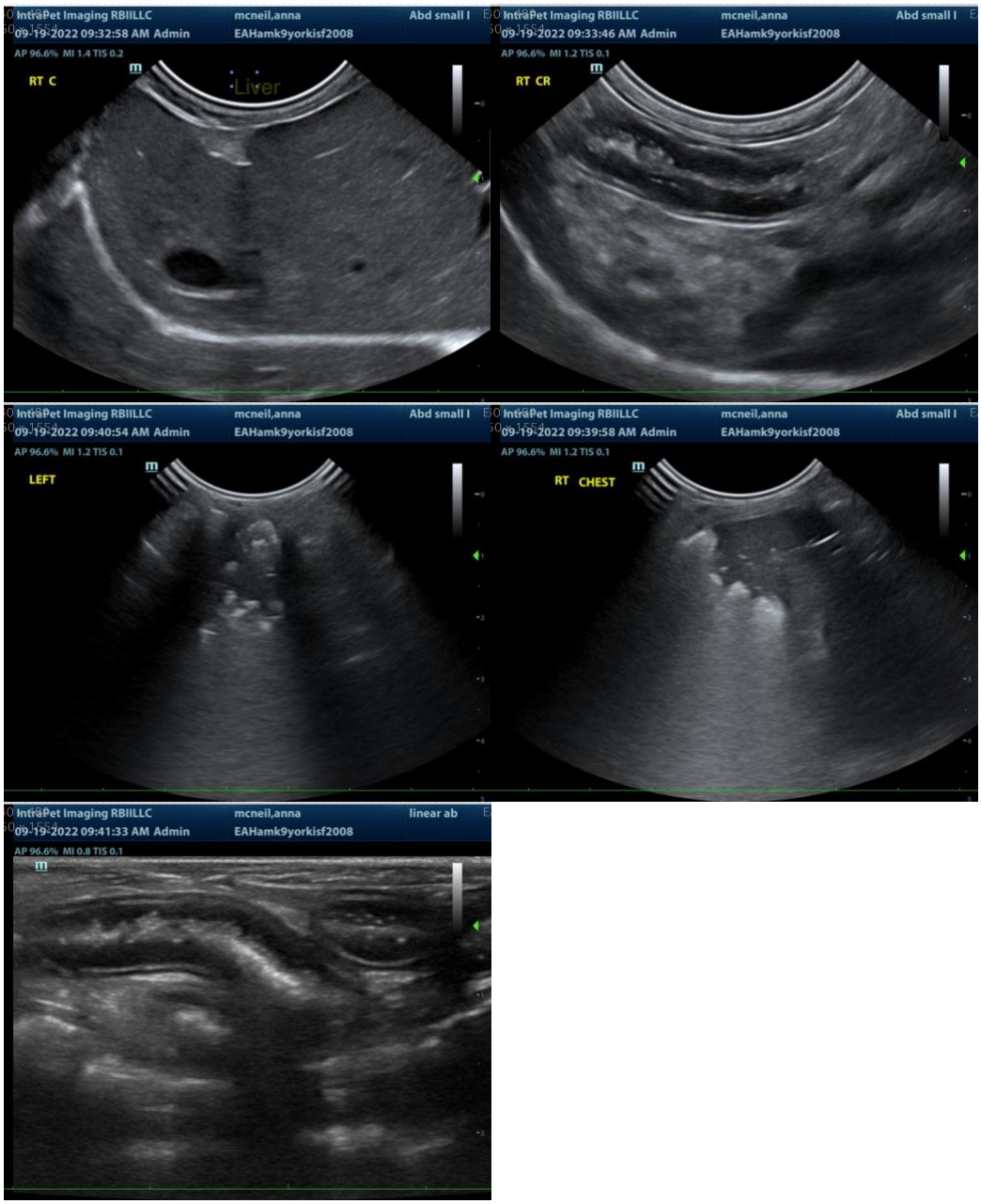
RT CHEST



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.

Beth Johnson, DVM DACVIM

Beth.Johnson@SonoPath.com