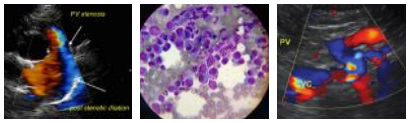
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
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DATE
9/8/22

PATIENT
Marley Votta

SPECIES
Canine

BREED
Shih Tzu

SEX
Canine

AGE
9/2/07

WEIGHT
27 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

HOSPITAL NAME
Warm & Fuzzy

REFERRING VET
Dr. Urie

INVOICE
17208

PRESENTING CLINICAL SIGNS

History: Seizure activity started 10 days ago, Acute GI upset started 7 days ago, went ER, renal values increased. Radiographs showed loss of detail in the cranial abdomen. Appetite is still decreased but stills and vomiting have improved.

Current Medications: Keppra.
Lab Results: Elevated BUN, elevated crea, Low USG, elevated urine protein.
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.

Kidneys are bilaterally normal (left kidney measures 3.59, right kidney measures 3.42), irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. Non-obstructive nephrolithiasis and mild pyelectasia are noted in the left kidney. No pyelectasia is noted in the right kidney. Non-obstructive nephrolithiasis is noted in the right kidney. A 1.0 cm cortical cyst is noted in the caudal pole of the right kidney.

Adrenal Glands

Left adrenal gland is normal in size (2.5 cm long x 0.75at cranial pole and 0.96 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal. A hyperechoic nodule is noted in the caudal pole. Nodule does not disrupt normal shape and/or architecture.

Right adrenal gland is normal in size (2.3 cm long x 0.53 cm at cranial pole and 0.64 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

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 normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as mild suspended and gravity dependent echogenic debris. The wall is mildly thick, hyperechoic and irregular with polypoid changes. Infiltrative neoplasia cannot be ruled out but is considered less likely. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness 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. 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 observed pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and irregular in shape with a swollen undulating contour. Enhanced hyperechoic ill-defined surrounding fat is noted. In the left limb/body of the pancreas, there is a 1.5 cm – 2.0 cm hypo- to anechoic portion of the pancreas surrounded by very bright enhanced hyperechoic fat and mesentery. This specific area appears to have slightly reduced blood flow, while blood flow to the remaining pancreas appears adequate.

Free Abdomen

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

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Acute pancreatitis with a suspected pancreatic cyst or even abscess in the left limb. Infiltrative neoplasia cannot be ruled out but is considered less likely.

Secondary Findings

- Gallbladder polypoid hyperplasia
- Chronic Kidney Disease with bilateral nonobstructive nephrolithiasis and mild pyelectasia in the left – This appearance of the kidneys is consistent with chronic kidney disease such as chronic glomerular or interstitial nephritis, chronic pyelonephritis, etc.
- Hyperechoic adrenal nodule in the caudal pole of the left adrenal gland – Differentials include primary adrenal cortical adenoma or adenocarcinoma, pheochromocytoma, myelolipoma, adrenal hyperplasia secondary to pituitary disease or metastatic disease. Ultrasound alone cannot differentiate between functional and non-functional nodules and/or between benign and malignant disease. Small nodules without other evidence of abdominal disease (to suggest metastatic disease) and/or clinical signs (to suggest adrenal disease) are most often incidental and should be monitored.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

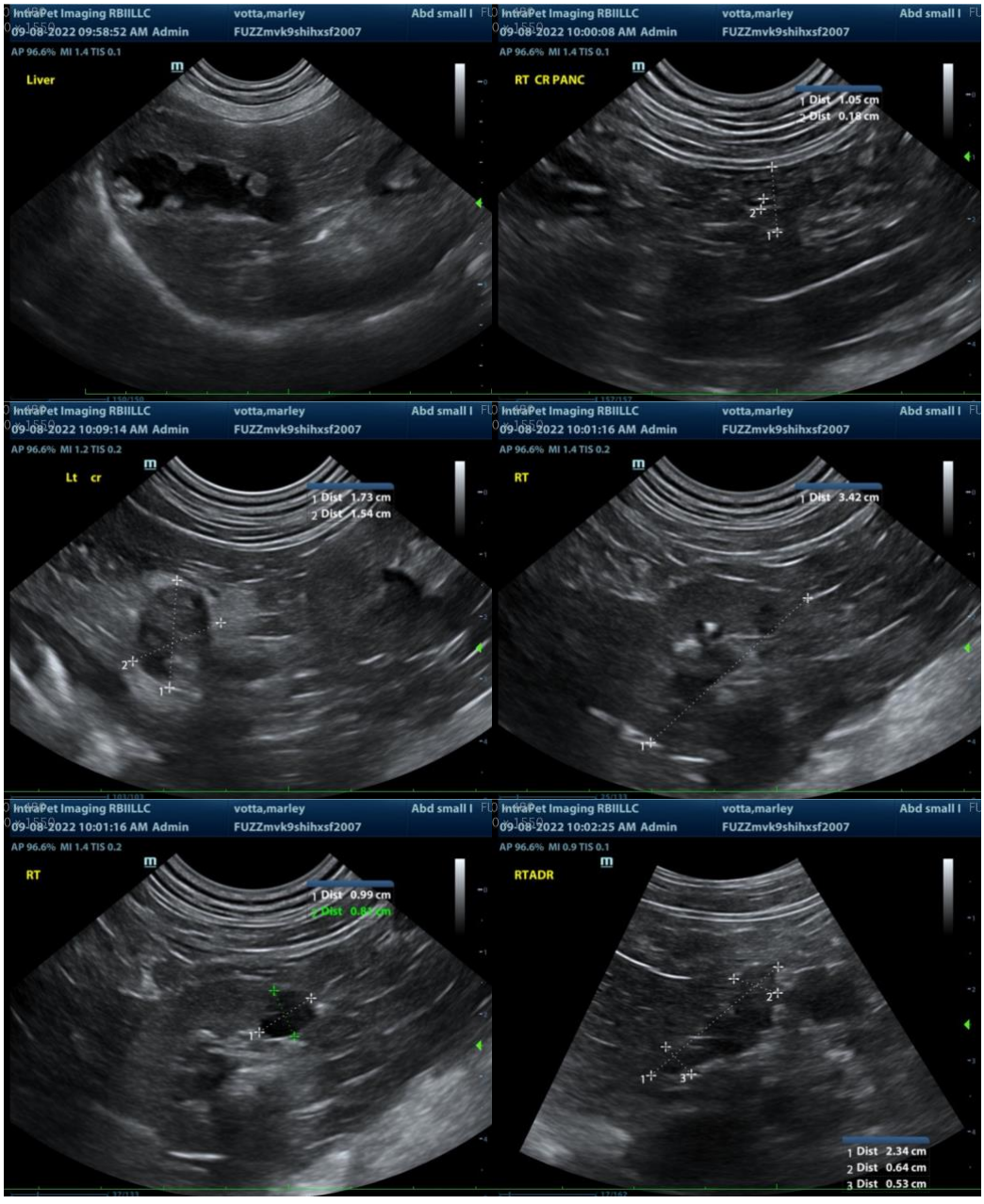
Given this patients history of neurologic signs and azotemia, as well as gastrointestinal signs, a toxic insult is possible and should be evaluated.

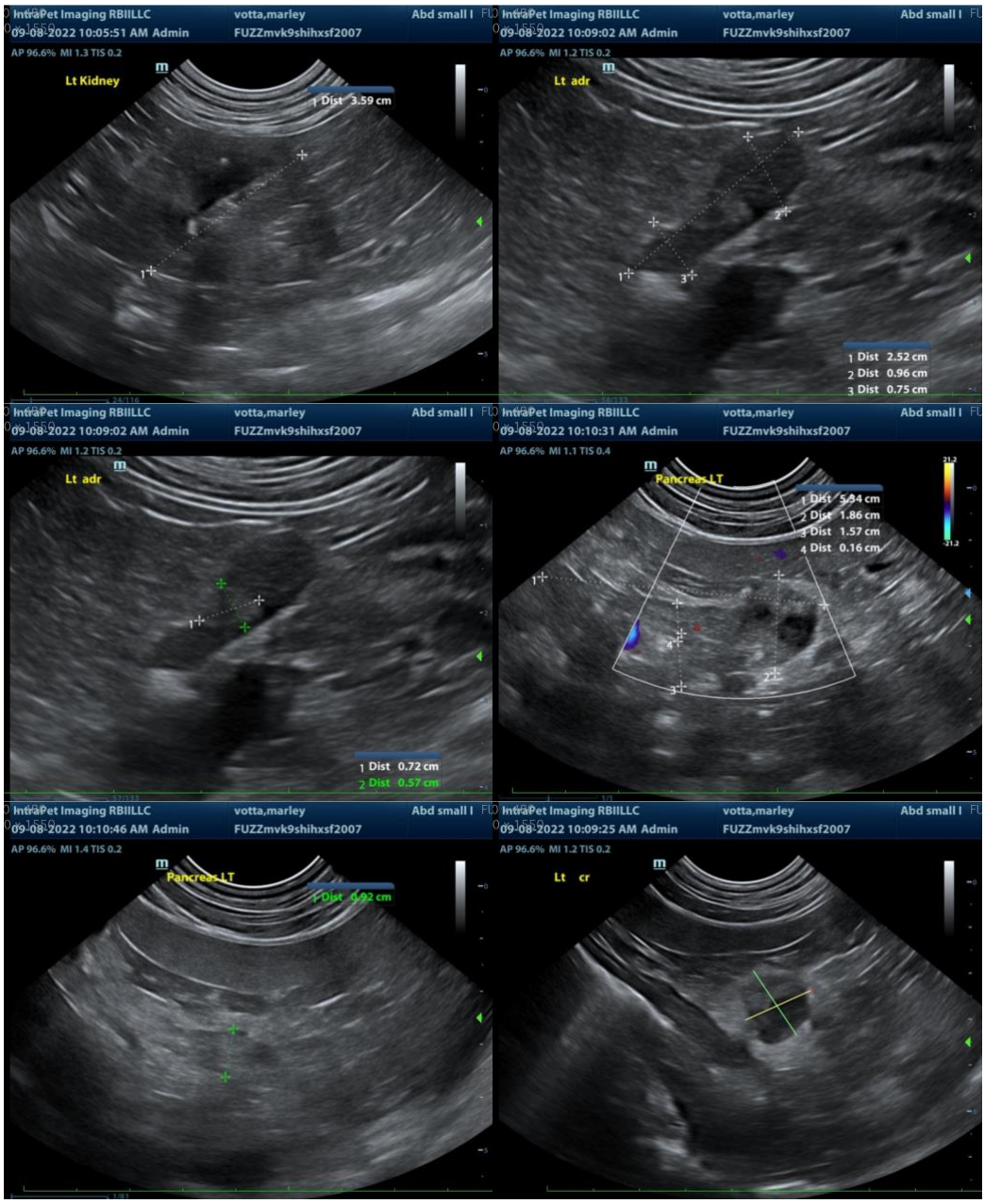
Testing for leptospirosis is also indicated.

A blood pressure is recommended if not recently evaluated, given the reported kidney disease and

proteinuria, as well as neurologic signs.

In the meantime, options regarding the pancreatic lesion are either to further evaluate it diagnostically in the form of a fine needle aspirate of the cystic area, if patients coagulation status is appropriate versus management and monitoring, in which case medical management of pancreatitis with anti-emetics, gastroprotectants, appetite stimulants or nutritional support as needed, pain management, broad spectrum antibiotics, and fluid 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. If the lesion does not resolve and/or progresses, then a fine needle aspirate is more urgently recommended.





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