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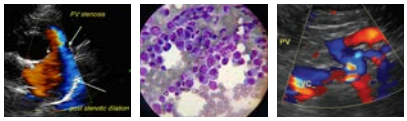

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DATE

10/11/22

PATIENT

Penny McKinney

SPECIES

Canine

BREED

Labrador X

SEX

Spayed Female

AGE

5/1/09

WEIGHT

40.8 Pounds

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Ruby

INVOICE

41969

PRESENTING CLINICAL SIGNS

Was having urinary accidents and UTI. Dx'd with kidney disease in September. Prescription diet started. Incontinent recently. Decreased appetite the last 2 days, eating grass, ate her dinner well then overnight shaking hunched stance and vomited several times. Urine this am and BM normal. Labored breathing and shaking.

Current Medications: Cerenia, Omeprazole, Amoxicillin, Protonix.
Lab Results: See attached.
Radiographs: Fluid filled loops of intestine. No obvious Fb or obstructive pattern noted
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 urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney has a normal shape and size (5.99 cm) with numerous small cortical cysts. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.36 cm) with pyelectasia at 0.46 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.70cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is prominent and borderline large, measuring 1.27 cm at the cranial pole, 0.70 cm at the caudal pole, and 2.59 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is somewhat abnormal in appearance in that it appears hypoechoic and prominent. But there is no focal mass lesion observed. Continued monitoring is warranted.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is subjectively normal in size, and hypoechoic with somewhat rounded edges, appearing somewhat swollen. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. There are a few hyperechoic nodules visualized within the parenchyma. One such nodule visualized measures 2.32 cm x 1.61 cm.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measured 0.36 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

Other

A brief view of the heart was submitted. No significant pericardial effusion was seen.

ULTRASONOGRAPHIC FINDINGS

- Decreased corticomedullary distinction in both kidneys with small cortical cysts and right-sided pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the kidney(s) could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

- Hypoechoic, somewhat swollen liver with hyperechoic mesentery in the region – Differentials would include inflammation, infection, infiltrative disease, etc.

- Hypoechoic, prominent right adrenal gland – The significance of this is unclear, as there is no focal mass lesion, and the adrenal is not overtly enlarged. Recommend a blood pressure and continue monitoring.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver appears hypoechoic and somewhat prominent with surrounding inflammation. This is concerning for possible inflammation of the liver. There are some hyperechoic nodules/small masses visualized, but most of these lesions appear to deep to be easily sampled. Recommend the following:

- Consider close evaluation of history for possible toxic changes examine medications, diet, dietary indiscretion etc...

- Consider PCR on urine/serum for leptospirosis (if not on antibiotics)/serology if recent antibiotic history

- If not already done, consider pre and post prandial bile acids to evaluate liver function

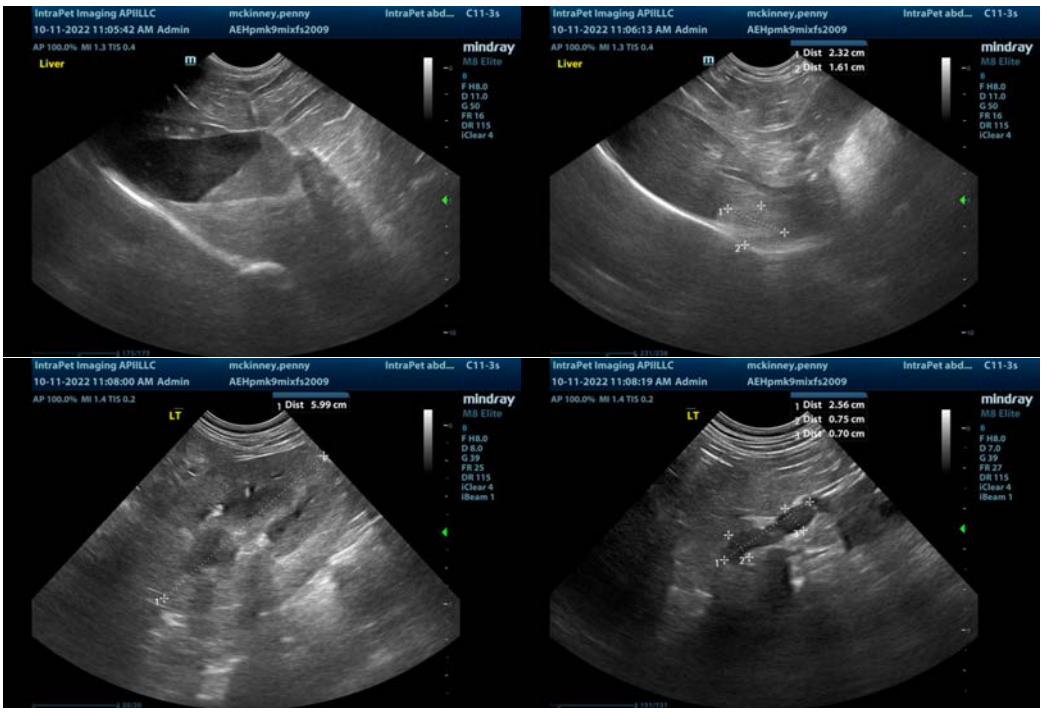
- Consider Fine needle aspirate if round cell neoplasia is on your differentia list (25 g needle, normal coags)

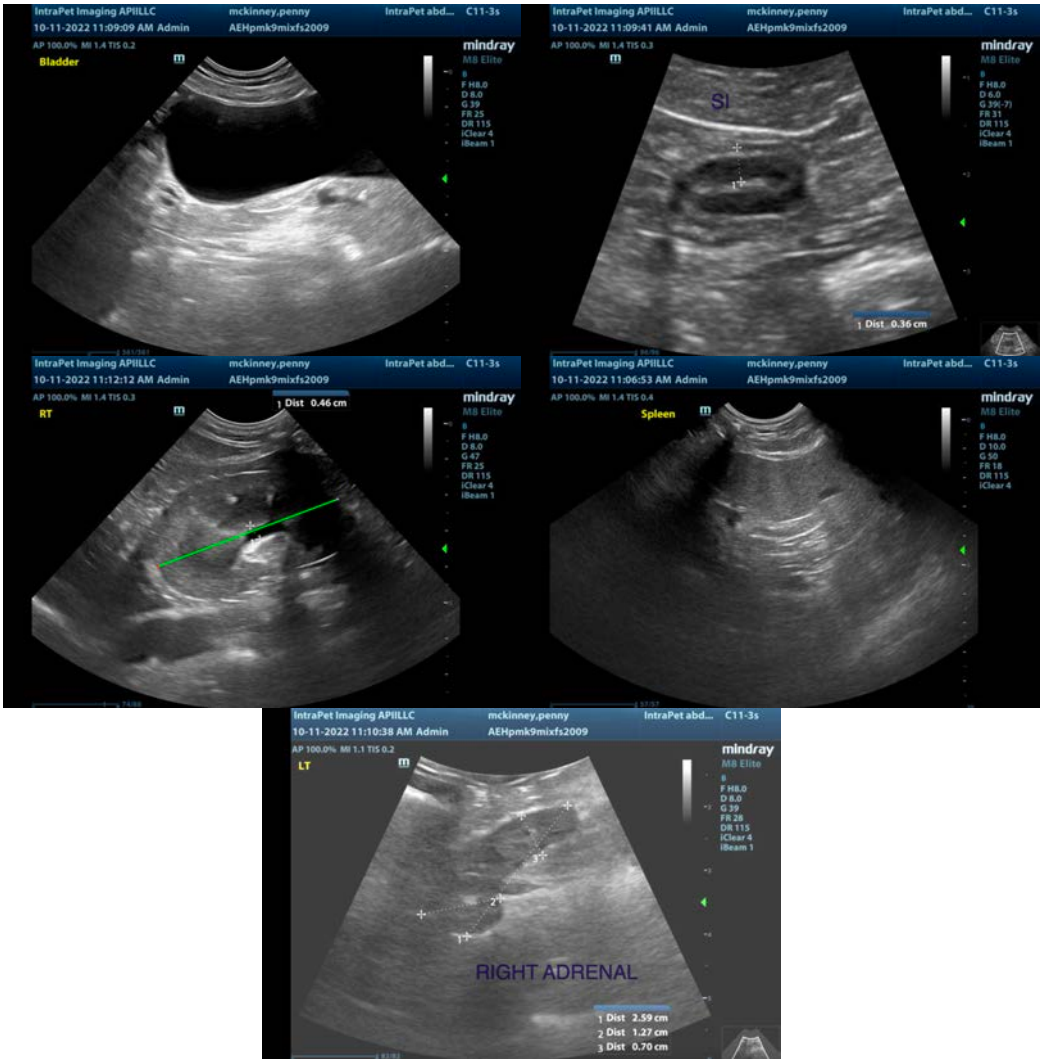
- If no response to supportive care (Denamarin, fluids, antibiotics, +/- ursodiol etc.) Consider liver biopsy with samples obtained for histopathology, culture, and copper levels.

The changes in the kidneys are most consistent with chronic progressive renal disease. Recommend a blood pressure evaluation, urinalysis and culture, as there is evidence of pyelectasia in the right kidney. Recommend diuresis and continued renal support.

Additionally, the right adrenal gland is prominent. No focal lesion is visualized, but the aforementioned blood pressure evaluation is appropriate and continued monitoring of this adrenal.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.





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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