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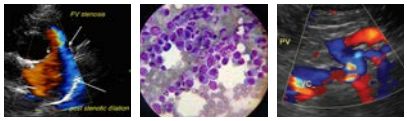

SonoPath

Clinical Sonography & Telecytology

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DATE

10/4/22

PATIENT

Sabbath Melanson

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

2/9/12

WEIGHT

13.7 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

All Creatures Veterinary Service

REFERRING VET

Dr. Meadows

INVOICE

40936

PRESENTING CLINICAL SIGNS

Persistent hematuria. Seen on 2/9/22 for vomiting and diarrhea. Bloodwork was normal. Chest x-rays showed some cardiac enlargement. Abdominal x-rays did not show anything significant. Owner brought back urine to complete the lab panel a on 2/21/22 which showed 20-30 RBC/hpf (no sorb sample). Recommended rechecking urine 2 weeks later to check for persistence. Owner did not do this, but brought him in for an annual in April-- reminded her then about the urine-- submitted 5/17/22-- Nosorb sample. Urine showed >100 RBC/hpf. Pet has not had any symptoms associated with this.

Current Medications: Atenolol 25mg 1/4T once daily.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Declined.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall appears normal with no focal thickening. There is a small area of dependent adherent hyperechoic debris measuring 1.09 cm along the dependent aspect of the bladder wall. The area of the trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear free of any calculi or mass lesions.

The left kidney is normal in size (4.22 cm) but irregular in shape (likely due to previous infarcts). There are small non-obstructive nephroliths visualized. 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, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (4.88 cm) but irregular in shape (likely due to previous infarcts). There are small non-obstructive nephroliths visualized. 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, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.40 cm 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 normal in size measuring 0.33 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is large (with scalloped edges) and is mildly mottled. The blood flow through the hilus and splenic parenchyma appears normal. There are numerous well-defined hyperechoic nodules varying in size from 0.5-0.87 cm. Some of these mildly deviate the splenic capsule.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach is dilated with a large amount of fluid and irregular shadowing material most consistent with normal ingesta and gas. It measures at a normal thickness of <0.36cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layering 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 mild to moderate 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 meaures 0.23 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 nonformed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid. The pancreatic duct is prominent at 0.28 cm.

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.

ULTRASONOGRAPHIC FINDINGS

- Decreased corticomedullary distinction in both kidneys with evidence of previous infarcts and small, non-obstructive nephroliths – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.

- Subjectively large, mottled spleen with hyperechoic nodules – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis. The distinct hyperechoic nodules could be consistent with benign lesions, but recommend a fine needle aspirate, as some of these do mildly deviate the splenic capsule.

- Prominent, mottled pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

- Large amount of shadowing debris within the gastric lumen – Correlate with the feeding history and abdominal radiographs. If the patient was adequately fasted consider such differentials as delayed gastric emptying, a partial outflow tract obstruction (none seen) or ingested foreign material.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a small amount of adherent hyperechoic debris in the ventral portion of the urinary bladder. This could be mucus, crystals, red blood cells, etc. No focal mass lesions or calculi were visualized. Recommend a

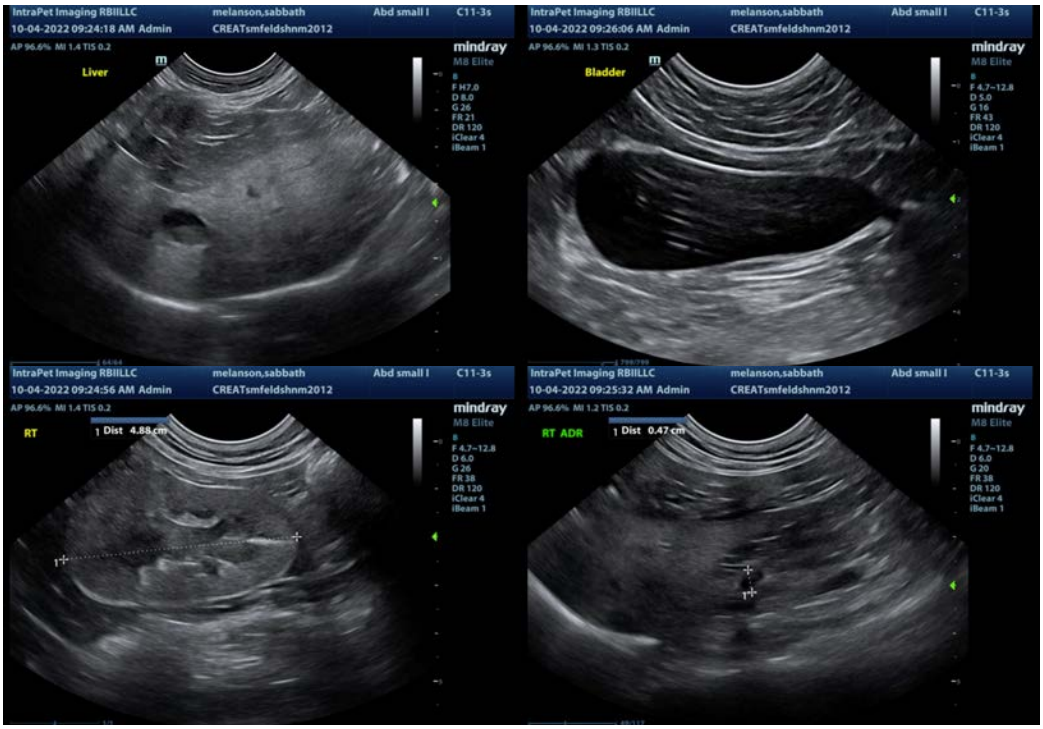
urinalysis and culture. If no evidence of an infection is present, then consider treatment for sterile cystitis and continued monitoring of the urinary bladder.

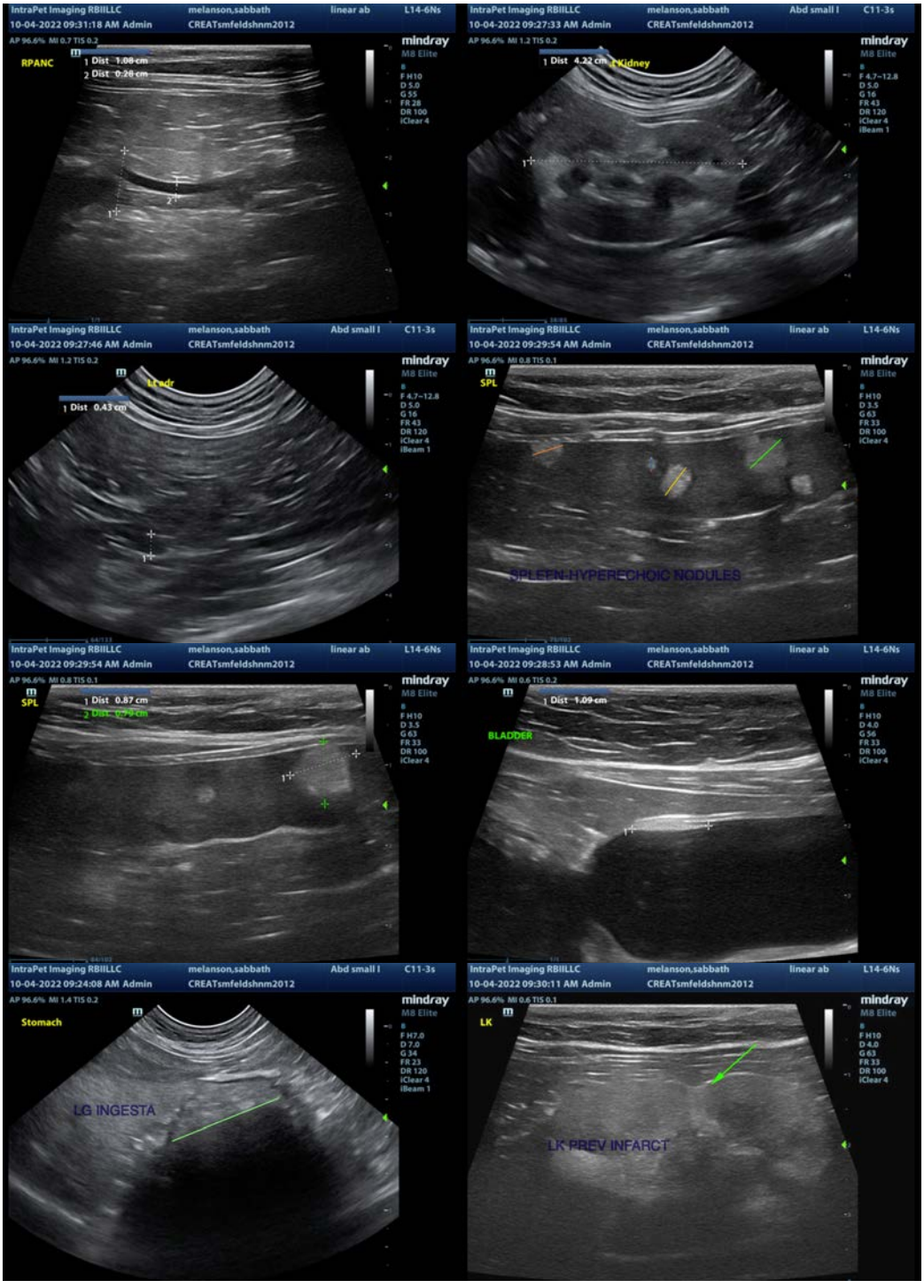
Both kidneys have changes consistent with chronic progressive age related renal disease. Recommend the aforementioned urinalysis, culture, and blood pressure evaluation.

There are hyperechoic nodules visualized throughout the spleen, and the spleen itself appears somewhat large. Recommend a fine needle aspirate of a hyperechoic nodule.

There are no focal lesions visualized associated with the gastrointestinal tract to explain the vomiting and diarrhea reported. There is some moderate fluid dilation of both the small and large intestine, and the pancreas is mildly prominent. Additionally, there is some shadowing material within the gastric lumen. Correlate these findings with feeding history. If this patient was adequately fasted, you could consider ingested material such as a hairball, or delayed gastric emptying, a pyloric outflow tract obstruction, etc. (no evidence of an outflow tract obstruction is visualized).

- Consider a novel protein/hydrolyzed protein prescription diet.
- Recommend chronic probiotic therapy.
- Recommend a GI panel to Texas A&M for a qualitative fPLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestine.
- If the vomiting and diarrhea persist despite these changes, and there is evidence of underlying gastrointestinal disease, consider obtaining GI biopsies.

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LK
LK PREV INFARCT

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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