IMAGING PERFORMED BY

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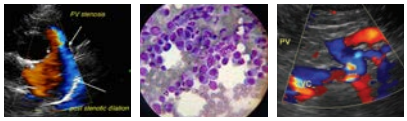

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

4/5/22

PATIENT

Angel Spealman

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

10/10/16

WEIGHT

6 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Bel Air Vet Hospital

REFERRING VET

Dr. Stevenson

INVOICE

36713

PRESENTING CLINICAL SIGNS

Examined for weight loss 3/12/22. Owner moved- pt getting more exercise recently. Weight went down from 10.4 to 6.0 from 2/27/20. PE- relatively unremarkable other than weight loss, decrease muscle mass. Urine taken by cysto- urine discolored amber/dark.

Current Medications: Z/D diet.
Lab Results: High calcium, Low Phos, rod bacteria UTI, poikilocytes?
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, or masses. In the dependent portion of the urinary bladder, there is a small amount of shadowing mineralized debris. Some of this appears to be sandy debris and possibly some small punctate stones. Correlate with abdominal radiographs.

The left kidney has a normal shape and size (3.44 cm) with pinpoint non-obstructive nephroliths. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (2.84 cm) with pyelectasia at 0.11 cm. There are numerous small nephroliths within the kidney measuring 0.15, 0.17 cm for example. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of infarcts or hydroureter. Renal vasculature is normal. The proximal ureter appears dilated, and there are at least 2-3 small foci of mineralization visualized within the dilated ureter, most consistent with small ureteral stones or accumulations of sandy debris. These mineralizations within the ureter measure 0.32, 0.30, and 0.14 cm.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.30 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 0.31 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 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 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 primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.36cm 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 uniform diameter with minimal fluid distension. Wall thickness is normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measured 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 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

- Small amount of dependent mineralized debris within the urinary bladder – Findings are most consistent with sandy debris or small stones. Correlate with abdominal radiographs. Recommend urinalysis and culture.

- Decreased corticomedullary distinction in both kidneys with right-sided pyelectasia and proximal ureteral dilation with suspect small ureteral stones/mineralizations – Findings are consistent with a partial ureteral obstruction.

- Prominent muscularis layer to the small intestine – The small intestinal wall changes are most consistent with an inflammatory process (i.e., inflammatory bowel disease) with a low possibility of emerging lymphoma.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There are small stones visualized within the right kidney, and some of these small stones appear to be visualized within the proximal ureter. The ureter is mildly dilated in this area. This could be a chronic finding in a partial obstruction, or more acute, and this could be related to the chronic weight loss if this cat has been passing stones over time, but it could also be an incidental finding.

- Recommend urinalysis, culture and blood pressure evaluation, as well as abdominal radiographs to determine if the stones in the ureters and bladder can be visualized.

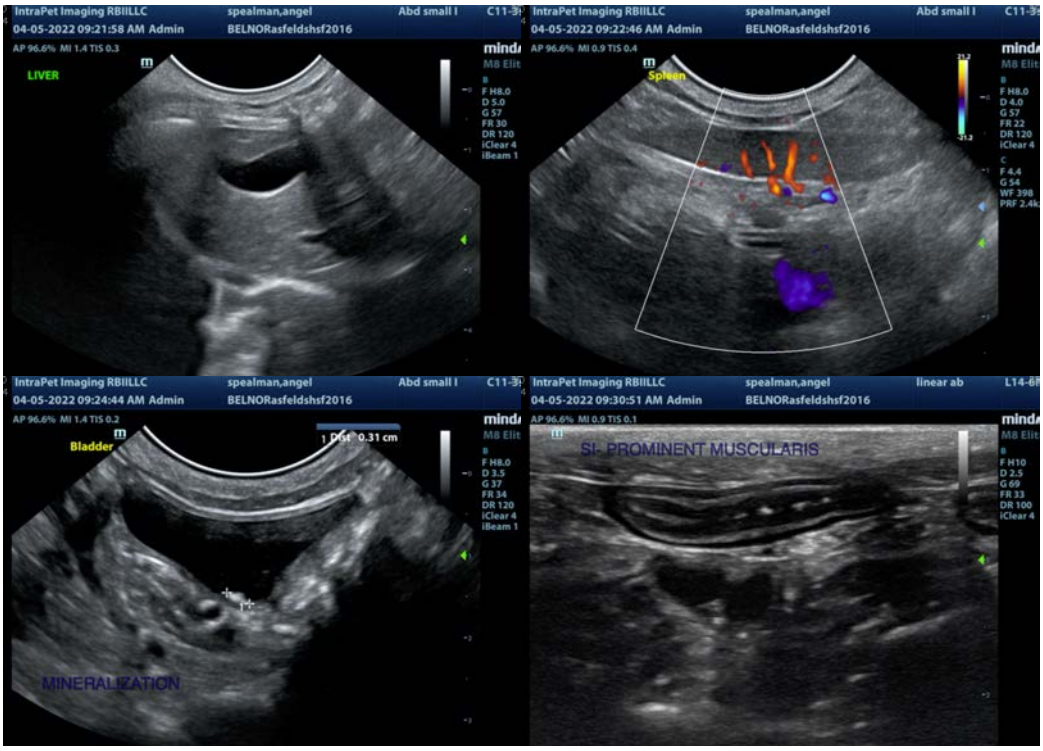
- Recommend pain medication and diuresis with continued monitoring of the right kidney to look for progressive dilation while likely treating for pyelonephritis.

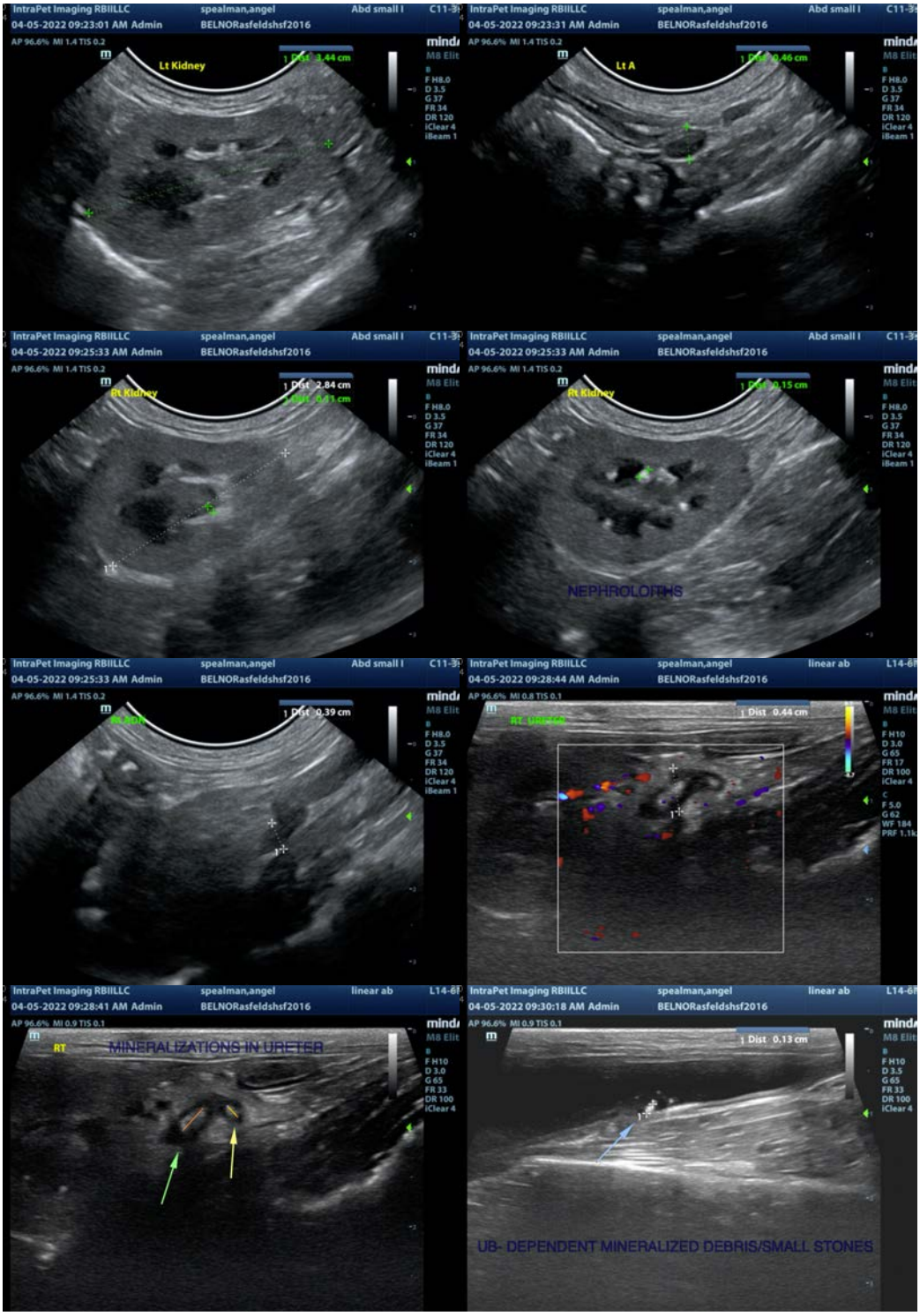
- If the ureter is thought to be clinically significant at this time, and there appears to be progression or is making the cat uncomfortable, then consider a contrast study (either contrast CT scan or IVP) to further evaluate the ureter and determine if intervention is recommended.

Additionally, there is a mildly prominent muscularis layer to the small intestine. This could be an indicator of mild current small intestinal disease, although this can sometimes be a normal finding in some older cats. If there is concern for underlying small intestinal disease, consider a GI panel to Texas A&M for a qualitative fPLI, TLI, cobalamin and folate to determine if there is additional evidence for this possibility. If GI disease is suspected as the cause for this weight loss, then consider a novel protein/hydrolyzed protein prescription diet and obtaining GI biopsies.

This cat has an elevated serum calcium level, which could be correlated with the stones observed in the urinary tract. Recommend an ionized calcium PTH/PTHrP level to further evaluate and to try and determine and underlying cause for the possible hypercalcemia noted.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.




IntraPet Imaging RBIIILLC
spealman,angel
Abd small I
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Lt Kidney
1 Dist 3.44 cm
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Abd small I
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Lt A
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Abd small I
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NEPHROLOTHS
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RT
MINERALIZATIONS IN URETER
IntraPet Imaging RBIIILLC
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1 Dist 0.13 cm
UB- DEPENDENT MINERALIZED DEBRIS/SMALL STONES

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
kathleen.sennello@sonopath.com