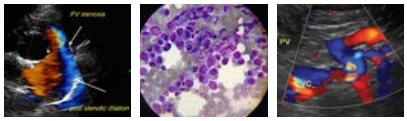
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

12/16/21

PATIENT

Zoe Interlandi

SPECIES

Canine

BREED

Miniature Schnauzer

SEX

Spayed Female

AGE

9/14/10

WEIGHT

12.6 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Bayside AMC

REFERRING VET

INVOICE

33506

PRESENTING CLINICAL SIGNS

History: hematuria, on rads of abdomen noted kidney stones as well as loss of definition of liver/spleen outlines, diabetic, some weight loss, hx of bladder stones.

Current Medications: Royal Canin SO Diet.
Lab Results: Attached separately within request.
Radiographs: kidney stones, hepatomegaly, possibly splenomegaly. Attached separately.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
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 appears diffusely mildly irregular. The area of the trigone, ureteral papillae and proximal urethra (to a depth of 2cm) appear normal with no evidence of mucosal irregularities or masses. In the dependent portion of the urinary bladder, there are two focal mineralizations measuring 0.43 cm and 0.55 cm. These are relatively flat in appearance, and could also be consistent with accumulations of mineralized debris.

The left kidney has a normal shape and size (5.55 cm) with pyelectasia at 0.33 cm and non-obstructive nephroliths measuring 0.5 and 037 cm. 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 right kidney has a normal shape and size (4.4 cm) with pyelectasia at 0.38 cm and non-obstructive nephroliths, one measuring 0.39 cm. 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.

Adrenal Glands

The left adrenal gland is normal/plump in size measuring 0.56 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/plump in size measuring 0.57 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. The spleen echotexture is heterogenous and mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There are no focal lesions observed, but there is diffuse pinpoint echogenic foci visualized.

Liver

The liver is large in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a hyperechoic, partially cystic mass effect visualized adjacent to the diaphragm, measuring 2.92 cm x 2.48 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 uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Duodenum wall measured 0.43 cm. Jejunum wall measured 0.38 cm. Mucosal speckling is evident. 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 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.

Free Abdomen

There is scant anechoic free fluid. No lymphadenomegaly. The omentum is generally of normal echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Decreased corticomedullary distinction in both kidneys with non-obstructive nephroliths and bilateral pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other. The hyperechoic mineralized foci observed at the corticomedullary junction of the left/right kidney are consistent with small, non-obstructive nephroliths.

- Focal areas of mineralized debris in the dependent portion of the urinary bladder – most consistent with either stones or sandy debris.

- Pinpoint echogenic foci within the splenic parenchyma – This appearance favors a benign process, but other differentials are possible (inflammation, neoplasia).

- Large, heterogeneous liver with focal, hyperechoic cystic mass – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. There is a focal, partially cystic mass adjacent to the diaphragm. This could be a benign or neoplastic lesion.

- Mildly thickened small intestine with mucosal speckling – The mild small intestinal wall changes may be a normal variant in this patient or could be consistent with an inflammatory process (e.g., inflammatory bowel disease). Bright mucosal speckling has been proposed to represent dilated lacteals or focal accumulation of mucus, cellular debris etc.. in the mucosal crypts of the small intestine.

SECONDARY FINDINGS

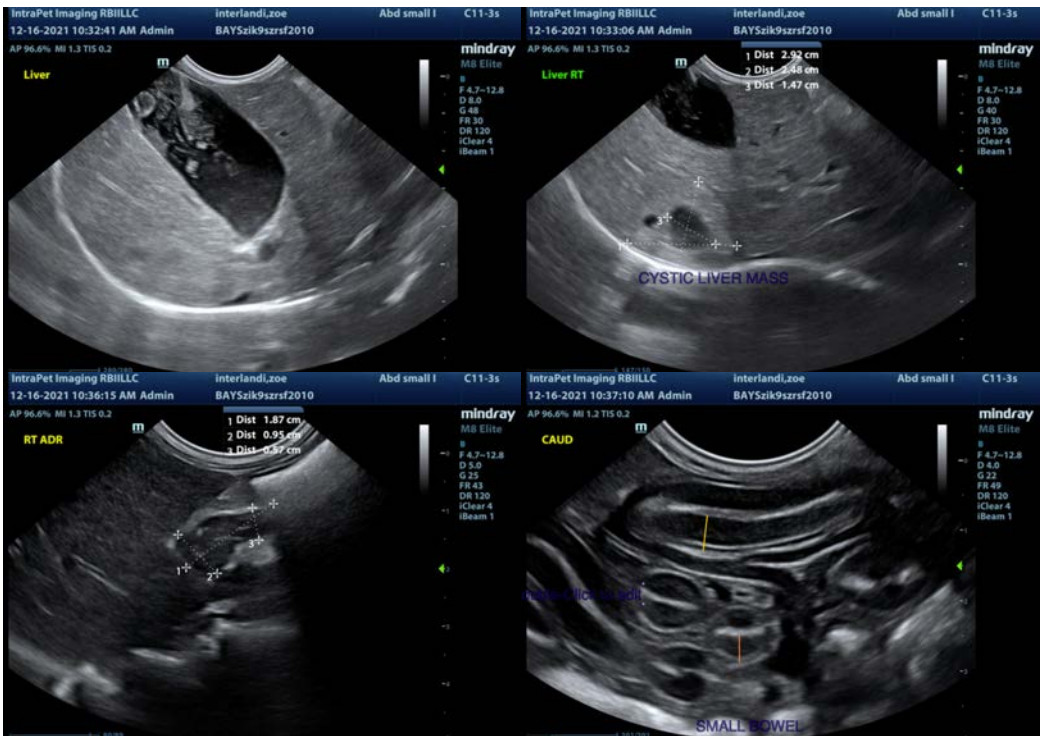
- Prominent, mottled pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

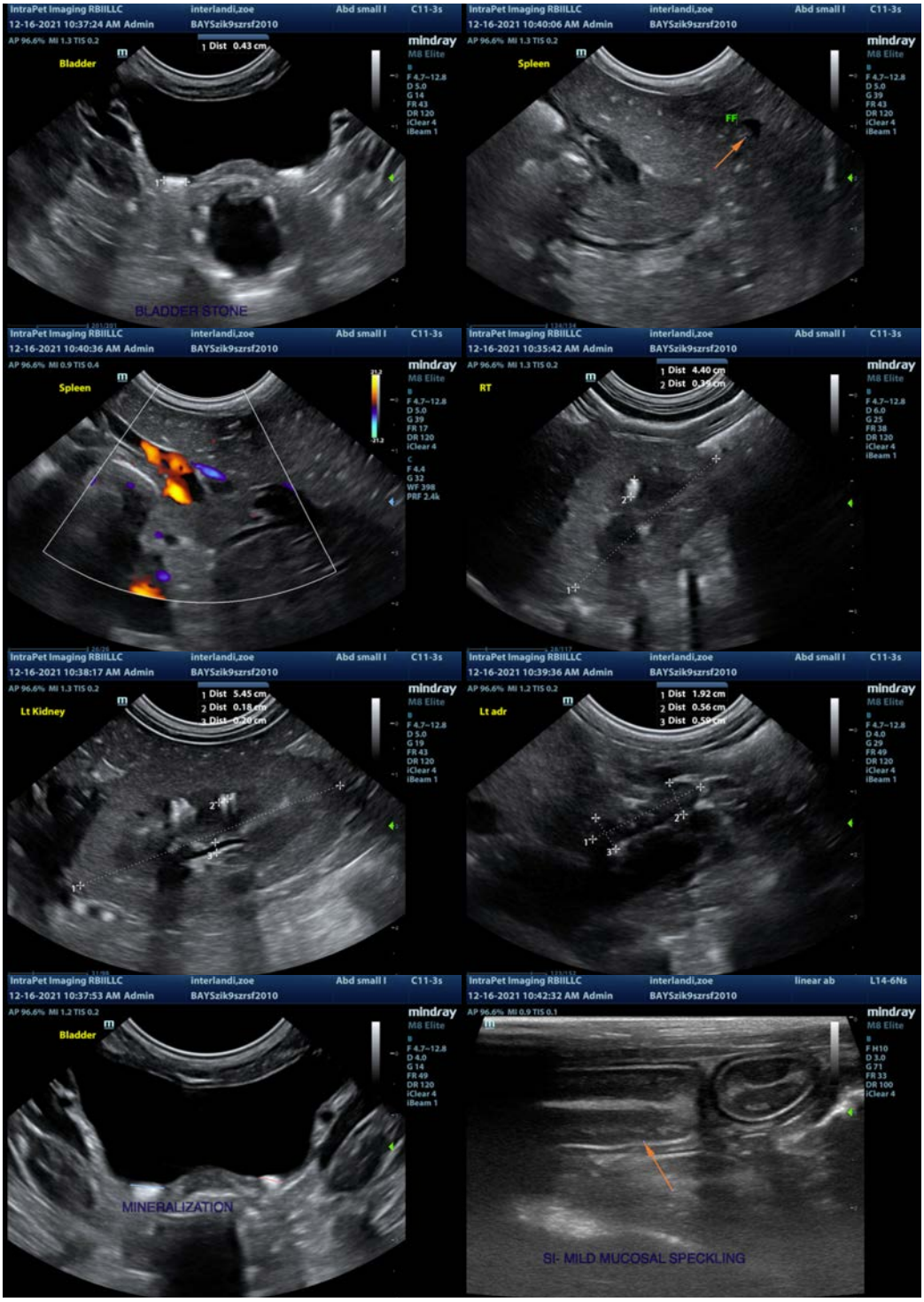
- Borderline plump adrenal glands – The adrenal glands are not overtly large, but appear plump for a patient of this size. This could be normal for this individual, or consistent with emergent pituitary dependent hyperadrenocorticism.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is mineralization evident within the urinary bladder and within both kidneys in addition to some pyelectasia and irregular bladder mucosa. Recommend urinalysis and culture to screen for infection. If an infection is present, recommend reevaluation after treatment to see if the bladder mineralization persists. Correlate the presence of the bladder mineralization with radiographs, as this could also just be dependent sandy debris. If a UTI is present, recommend it is treated as a complicated UTI with a prolonged course of antibiotics, culturing while on antibiotic to ensure the infection is being addressed, and then culturing again approximately one week after discontinuing antibiotics to ensure the infection is gone, then institute a monitoring protocol with a culture approximately one month out, then 3 months, then potentially every 6 months in addition to monitoring for stone formation, as this is an at-risk patient.

There is a focal mass effect within the liver. I suspect this is not causing any clinical signs at this time, and unfortunately it is in a difficult place to sample. Options moving forward include continued monitoring with ultrasound.

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interlandi,zoe
BAYSzik9szrsf2010
Abd small I
C11-3s
mindray
M8 Elite
Bladder
1 Dist 0.43 cm
BLADDER STONE
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interlandi,zoe
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Abd small I
C11-3s
mindray
M8 Elite
Spleen
FF
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C11-3s
mindray
M8 Elite
Spleen
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BAYSzik9szrsf2010
Abd small I
C11-3s
mindray
M8 Elite
RT
1 Dist 4.40 cm
2 Dist 0.35 cm
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Abd small I
C11-3s
mindray
M8 Elite
Lt Kidney
1 Dist 5.45 cm
2 Dist 0.18 cm
3 Dist 0.20 cm
IntraPet Imaging RBIILLC
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interlandi,zoe
BAYSzik9szrsf2010
Abd small I
C11-3s
mindray
M8 Elite
Lt adr
1 Dist 1.92 cm
2 Dist 0.56 cm
3 Dist 0.59 cm
IntraPet Imaging RBIILLC
12-16-2021 10:37:53 AM Admin
interlandi,zoe
BAYSzik9szrsf2010
Abd small I
C11-3s
mindray
M8 Elite
Bladder
MINERALIZATION
IntraPet Imaging RBIILLC
12-16-2021 10:42:32 AM Admin
interlandi,zoe
BAYSzik9szrsf2010
linear ab
L14-6Ns
mindray
M8 Elite
SI- MILD MUCOSAL SPECKLING

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.

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