IMAGING PERFORMED BY

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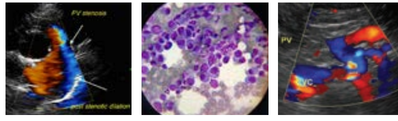

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DATE
5/21/22

PATIENT
Bella Musella

SPECIES
Feline

BREED
DSH

SEX
Spayed Female

AGE
7/18/12

WEIGHT
15.5 Pounds

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

IMAGING PERFORMED BY
Rachel Brilhart RDMS

HOSPITAL NAME
Animal Emergency Hospital

REFERRING VET
Dr. King

INVOICE
38102

PRESENTING CLINICAL SIGNS

Hiding, leaking bloody fluid owner was not sure--but it is urine has not had urinary issues before. Bladder palpates tense, painfully, leaking bloody urine.

Current Medications: Convenia, Gabapentin , Onsior, Buprenorphine, Prazosin.
Radiographs: No stones seen on radiograpsh; Quick scan of bladder shows possible blood clot
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 adequately distended with anechoic urine. There is a large amount of dependent echogenic debris, most consistent with debris and clot formation. Additionally, the proximal urethra appears somewhat dilated, measuring 0.40 cm, is visualized up to the pelvic rim with no obvious evidence of intraluminal obstruction, mass, stone, etc. There is a large amount of surrounding omental inflammation and scant striations of free fluid. Findings are concerning for a distal urethral obstruction or trauma to the urinary bladder/urethra.

The left kidney is normal in size and somewhat irregular, measuring 4.04 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 pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size and somewhat irregular, measuring 4.05 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 pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands
The region of left adrenal (Cranial to left renal artery) is unremarkable but the adrenal is not distinctly visualized. No evidence of a mass effect.

The region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. 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 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. The duodenum measured as normal (between 0.13-0.38cm in wall thickness) and the jejunum measured as normal (between 0.15-0.36cm.) 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 free fluid visible in the caudal abdomen. There is no lymphadenopathy, but the omentum is of increased echogenicity around the urinary bladder.

ULTRASONOGRAPHIC FINDINGS

- Distended urinary bladder and proximal urethra with dependent material – most consistent with clot and debris. Findings are concerning for possible hemorrhage within the urinary bladder. No focal lesions are observed. Consider possible distal obstruction, trauma, etc.

- Focal caudal peritonitis – There is free fluid and a large amount of inflammation surrounding the urinary bladder, most consistent with focal peritonitis. This could be due to urine leakage, trauma, infection, etc.

- Decreased corticomedullary distinction in both kidneys – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.

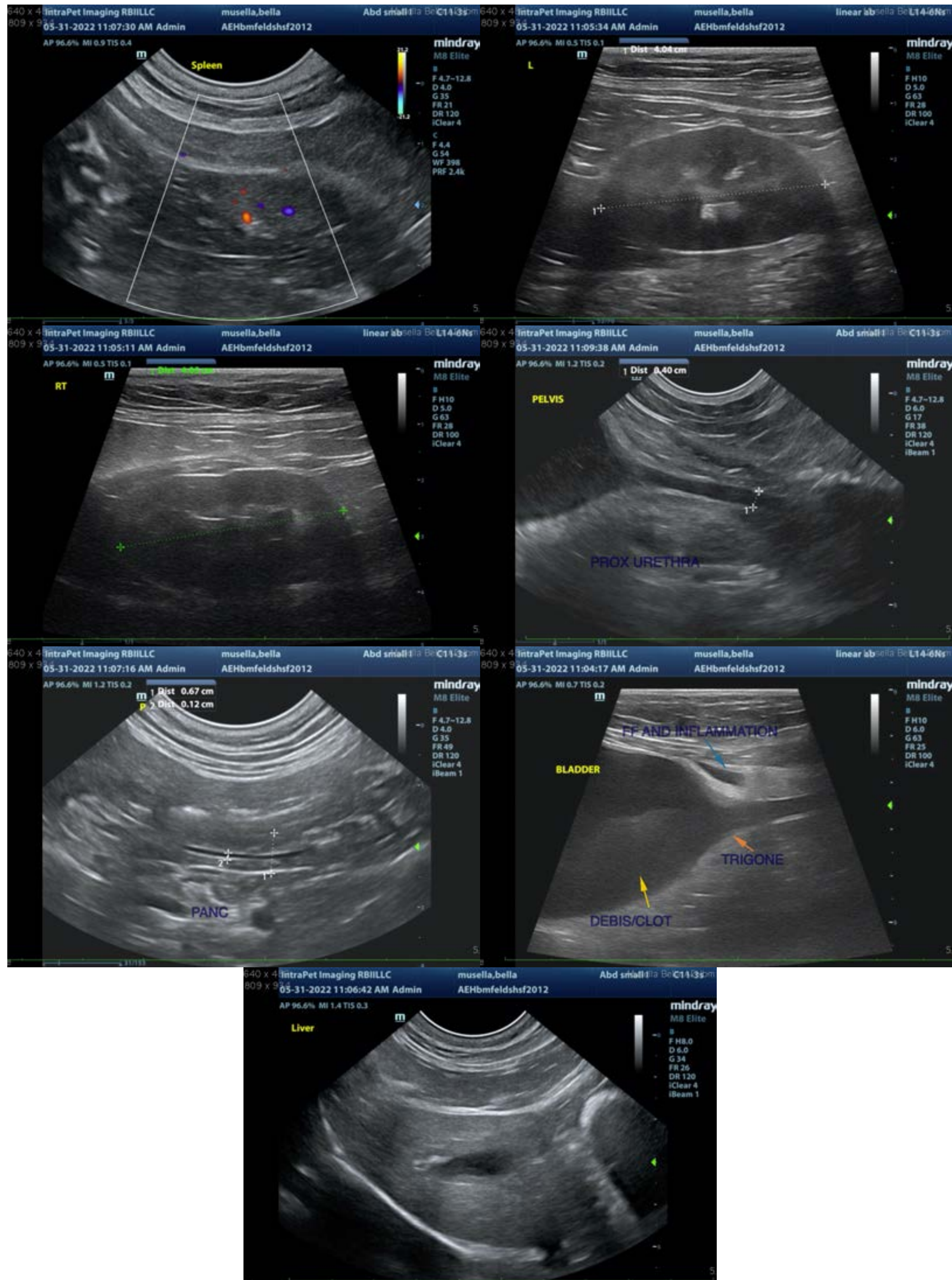
- Prominent, mottled pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The urinary bladder and urethra are distended, and there is a large amount of dependent material, most consistent with clot and non-specific debris. Additionally, there is a large amount of surrounding inflammation and some free fluid. These findings are concerning for a possible obstruction with urine leakage(?), which seems unlikely in a female cat. Recommend a digital rectal exam and vaginal exam under sedation to look for any evidence of a distal stone, mass etc.

Additionally, if possible, catheterization of the urethra with an indwelling foley might be helpful to help clear out some of the debris, and if there is a rent in the urethra, to help seal it off. A contrast cystogram could also be considered with caution to use only sterile materials and not overfill the urinary bladder, etc. Recommend

a urinalysis and culture if a sterile or “clean” sample can be obtained. It would also be possible that a clot from the urinary bladder has passed to the distal urethra and is causing a blockage, as this would not be radiopaque. In this instance, the cause for clot formation is unknown. Consider trauma(?), infection, underlying coagulopathy, etc. Recommend very close monitoring and evaluation of bloodwork for evidence of urinary obstruction.



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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