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Clinical Sonography & Telecytology
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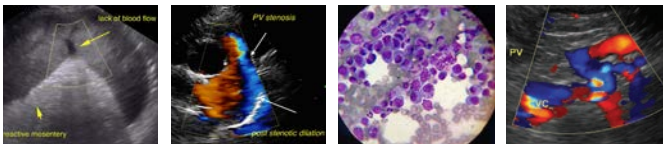

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1-800-838-4268 info@sonopath.com

PATIENT
Raja Steward

SPECIES
Feline

BREED
DSH

SEX
Spayed Female

AGE
14 Years

WEIGHT
8.1 Pounds

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

IMAGING PERFORMED BY
M. Kermendy, CVT

HOSPITAL NAME
Wauwatosa Vet

REFERRING VET
Dr. Jamie Oakes

INVOICE
26396

DATE
10/20/21

PRESENTING CLINICAL SIGNS

Patient presented for urinating outside of the box. A UA revealed a lot of RBC and WBC. Urine culture did not show any growth. This has happened in the past. Abdominal US to rule out calculi or tumor.

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. Wall thickness measured 0.23 cm.

The left kidney has a normal shape and size (3.46 cm) with mild pyelectasia of 0.12 cm. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.76 cm). Overall echogenicity is normal with adequate 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 left adrenal gland is normal in size measuring 0.34 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 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

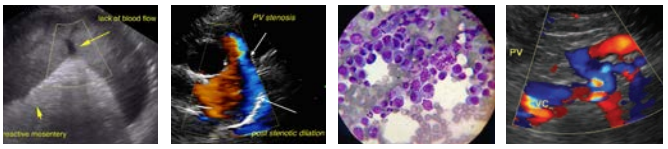
The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. There is a 2.24 cm hyperechoic mass effect visualized on the right side of the liver with numerous hypoechoic cystic appearing structures.

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



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layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measured 0.25 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.

PRIMARY FINDINGS

- Hyperechoic/suspect cystic lesion/mass effect in the liver – This could be consistent with a benign cystadenoma, etc., or could be a more concerning neoplasm.

SECONDARY FINDINGS

- Mild pyelectasia of the left kidney – Pyelectasia of the left kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No significant lesions were observed associated with the urinary bladder. The mild pyelectasia observed in the left kidney is likely within normal limits, particularly considering the negative urine culture reported in the history.

There is a hyperechoic lesion in the liver. There are hypoechoic lesions within this, most suggestive of cystic type lesions. Further evaluation with color flow would be necessary to rule out vascular structures. Biliary structures cannot be excluded, but seem unlikely based on the appearance. This could be consistent with something benign such as cystadenoma, or could be more concerning, such as a primary liver tumor.

Options moving forward include possible fine needle aspirate with a small gauge needle (provided the lesion is not overly vascular – if cystic it may be difficult to get an adequate cytologic sample). Alternatively, you could consider advanced imaging (CT scan) for further evaluation and possible planning for surgical removal. If this is a benign lesion, prognosis with surgery would be good. Lastly, you can continue to monitor with ultrasound and blood work for conservative management.

Based on the history, I would most strongly suspect idiopathic cystitis. These are things I consider:

- Urinalysis and culture are recommended (already done and culture was negative).
- Due to the diffuse nature of the lesion, interstitial cystitis is suspected (if culture is negative)
- Treatment of FIC can be frustrating as it is a waxing and waning disease. Treatment strategies vary and there is no “one fits all” approach. There is currently no cure for FIC. Goals of therapy include reduction of severity and duration of clinical signs during an acute episode; increasing the interval between episodes; and decreasing severity of signs in cats with persistent FIC. Approximately 85% of cats will experience clinical improvement with or without therapy.

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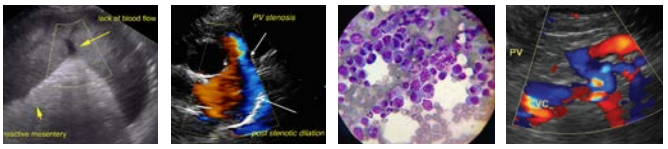

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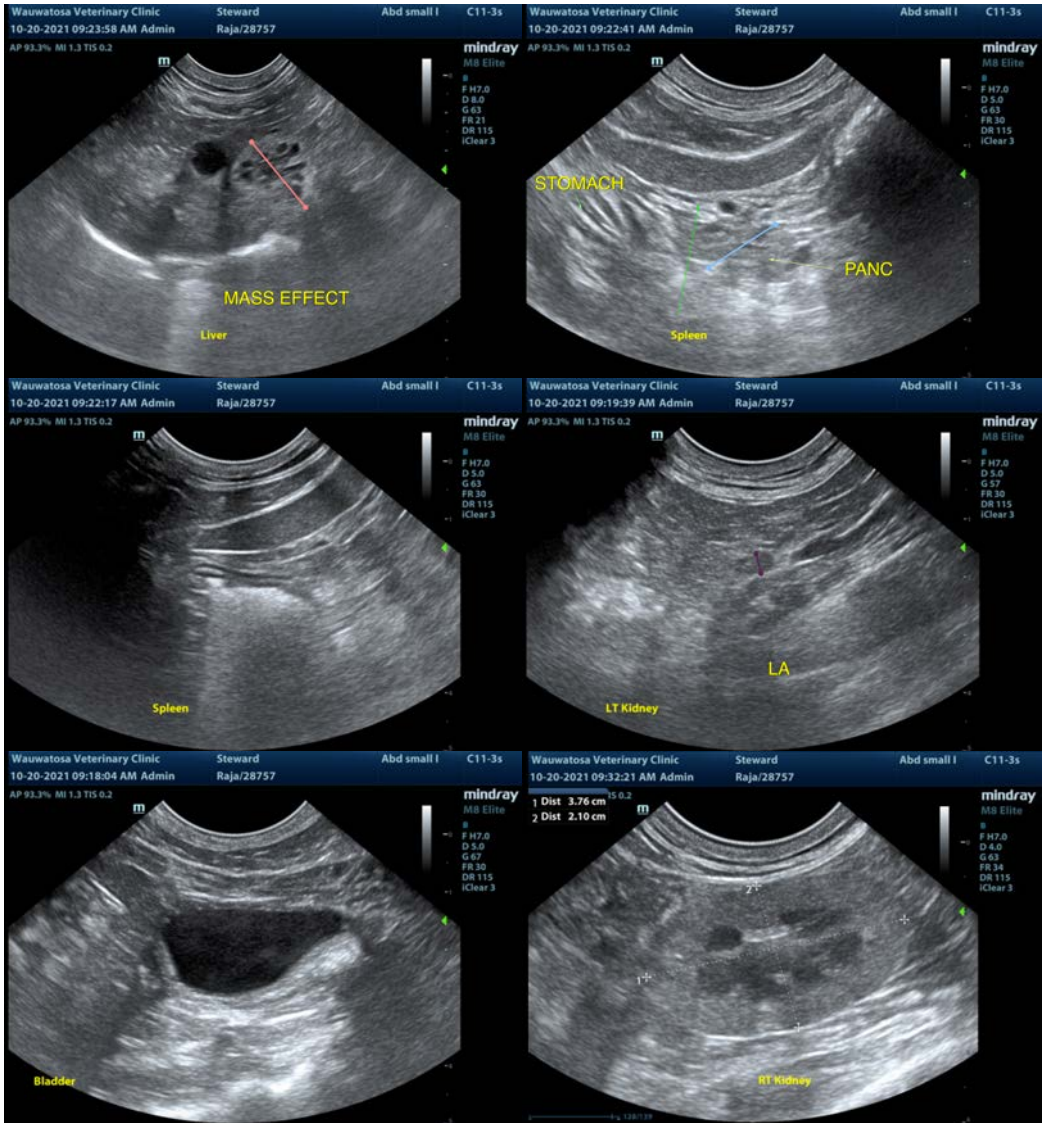
- Numerous therapies can be considered including: diet, multimodal environmental modification, analgesics, anti-inflammatories, anti-anxiety medications etc..
- Close observation is warranted as some cats do experience life-threatening urinary obstruction.
- If symptoms are worsening re-evaluation with ultrasound should be considered.
- Recommend 3-view thoracic radiographs.



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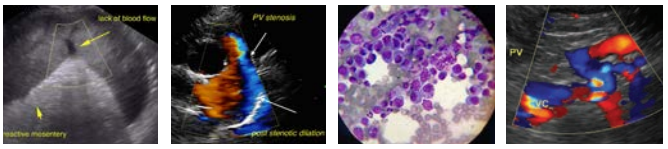

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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