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Clinical Sonography & Telecytology
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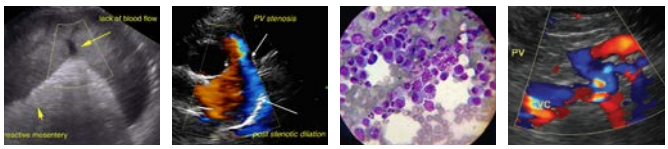

SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT
Gixxer Vlaar

SPECIES
Feline

BREED
DLH

SEX
Neutered Male

AGE
15

WEIGHT
5.8 kg

INTERPRETED BY
Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Dr. Belan

HOSPITAL NAME
Beddington Trail AC

REFERRING VET
Dr. Sandhu

INVOICE
44729

DATE
8/16/23

PRESENTING CLINICAL SIGNS

Recurrent UTIs over last few months respond to medication then reoccur after medication is finished. Hematuria.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall is irregular and thickened with polypoid like projections, particularly in the apical region of the urinary bladder. This irregular area extends for over 2.0 cm with a maximal width of approximately 1.0 cm, but these measurements are highly variable. Additionally, there is an anechoic structure visualized in the ventral apical region, which appears somewhat cystic and could be consistent with a urachal diverticulum. This anechoic area measures approximately 0.23 cm. The remainder of the urinary bladder and trigonal region with the proximal urethra appear normal and free of any thickening, calculi, or mass lesions.

The left kidney has a normal shape and size (3.74 cm). Overall echogenicity is normal with adequate 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, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.67 cm). Overall echogenicity is normal with adequate 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, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.44 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 (0.97 cm), 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 mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

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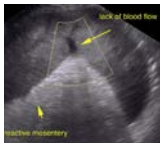
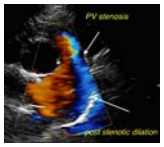
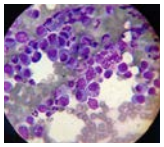
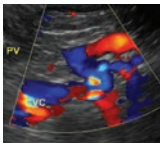

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Gastrointestinal

The stomach contains moderate ingesta. 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 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. Duodenum wall measures 0.29 cm. Jejunum wall measures 0.26 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 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

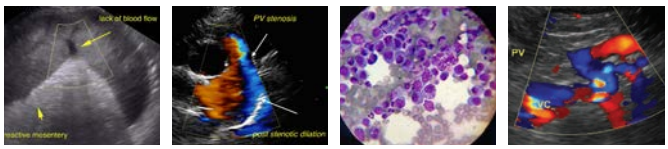
Evaluation of the peritoneal cavity did not reveal any evidence of effusion. The sublumbar lymph nodes are slightly prominent and visible, measuring at 0.29 cm. The omentum is of normal echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Focal polypoid type irregularity and thickening of the apical urinary bladder wall as well as an anechoic structure visualized in the region of the urachal remnant. Findings could be consistent with a urachal diverticulum and focal polypoid cystitis, although neoplasia cannot be definitively ruled out.
- Prominent, mildly 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.
- Mild fluid/ingesta distention of the stomach and small bowel – Findings are most consistent with a non-fasted patient. If the patient was adequately fasted, consider such differentials as delayed gastric emptying.
- Prominent sublumbar lymph node – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is significant focal irregularity visualized in the apical wall of the urinary bladder. This could be consistent with focal cystitis or a neoplastic process. Typically, in an aged patient, I would be primarily concerned with a neoplastic process, although with the active infection and the possible urachal remnant, this could also present focal cystitis with a bacterial nidus secondary to a possible urachal remnant. Options would include a traumatic catheterization to try and obtain a cytologic sample.



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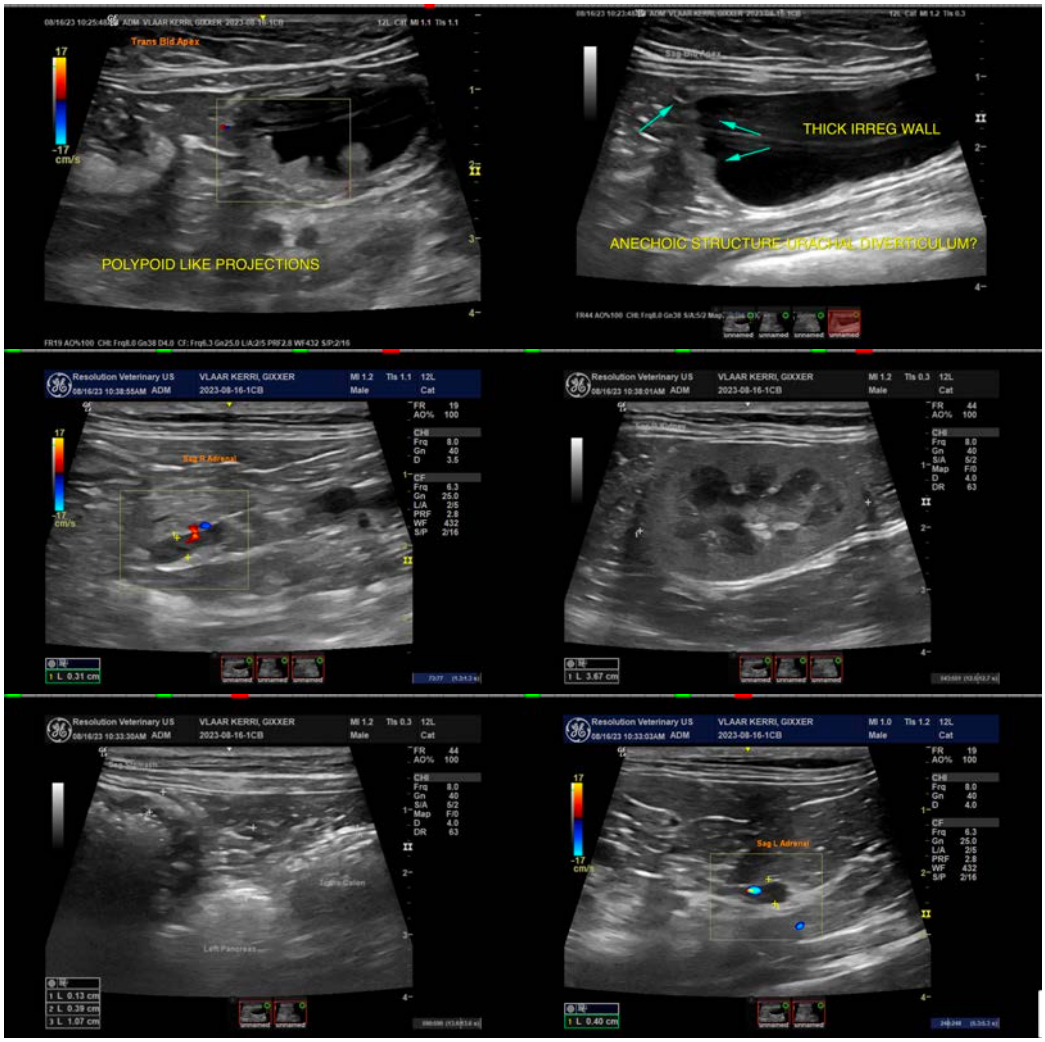
Alternately, you could consider prolonged antibiotic treatment based on culture and sensitivity results (these would likely need to be repeated periodically while on antibiotics), and concurrent use of probiotics (spaced at least two hours from antibiotic therapy) with continued monitoring of the apical region of the urinary bladder with ultrasound. If the infection can be reduced/controlled, often polypoid lesions will resolve/improve, and this would be supportive of a more benign process. It's possible that if this was an infected urachal remnant that surgical resection would be necessary. If there is no response to the lesions despite prolonged antibiotics therapy (at least initially 4-6 weeks), then a neoplastic process would be more likely.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.



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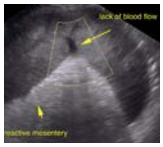
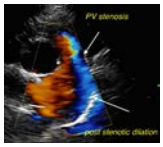
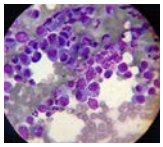
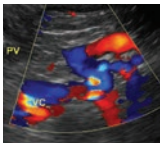

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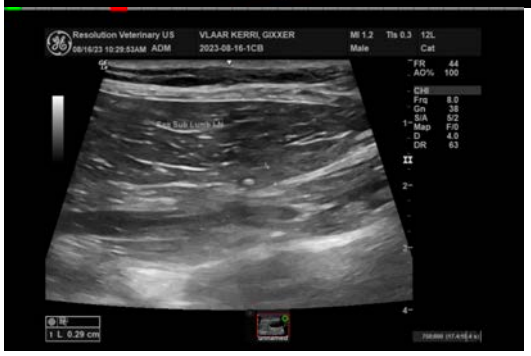

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

info@sonopath.com