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Clinical Sonography & Telecytology
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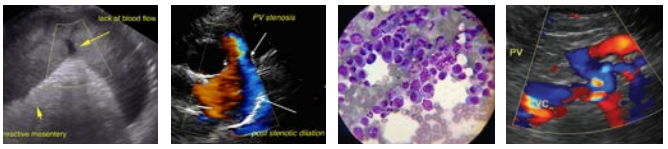

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1-800-838-4268 info@sonopath.com

PATIENT
Cougar Hertzler

SPECIES
Feline

BREED
DLH

SEX
Neutered Male

AGE
13 Years

WEIGHT
13.04

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

IMAGING PERFORMED BY
Jack Reese

HOSPITAL NAME
Willow Run VC

REFERRING VET
Dr. Gwenna Brubaker

INVOICE
24603

DATE
8/12/21

PRESENTING CLINICAL SIGNS

History of urinary tract infections, inappropriate elimination. Recent weight loss noted - slightly decreased appetite. No vomiting or diarrhea noted.
Abnormal PE/Chem/CBC/UA Results: Soft, moveable mass noted left cranial abdomen - deep SQ vs. abdominal Urinalysis - bacteriuria, active sediment

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.

The left kidney has a normal shape and size (5.0 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 has a normal shape and size (5.33 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 0.27 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 0.2 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 heterogenous in echotexture with subtle, indistinct focal mottling. There are small shadowing stones visible in the intrahepatic portions of the biliary tract. The gallbladder is full of mineralized stones, and the bile duct is dilated and contains stones. No masses or cystic lesions observed.

The gallbladder lumen is mildly distended. The wall of the gall bladder is mildly thickened and hyperechoic. Luminal contents are largely mineralized, most consistent with a pile of stones, but resolution cannot clearly differentiate them. The bile duct is dilated and tortuous, measuring approximately 0.66 cm with numerous large stones within the duct, generally measuring between 0.4 and 0.5 cm. There is no evidence of severe inflammation surrounding the bile duct, and a focal point of obstruction is not visualized. The gallbladder does not appear severely dilated.

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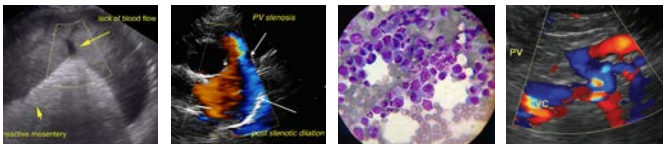

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Gastrointestinal

The stomach is severely dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering 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 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. 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 area of 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 (list if measurements given). 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

There is a superficial layer of homogeneous tissue superficial to the spleen, which appears to not be within the abdominal cavity. This could be a lipoma, but the tissue appears somewhat hypoechoic. Recommend fine needle aspirate.

PRIMARY FINDINGS

- Biliary stones visualized within the intrahepatic bile ducts, gallbladder, and cystic and common bile ducts. There is significant dilation of the bile duct.
- Heterogeneous liver – Hepatic changes are non-specific and could be consistent with hepatic lipidosis, inflammatory/infectious disease, infiltrative neoplasia, or other hepatopathy.

SECONDARY FINDINGS

- Abnormal subcutaneous tissue – Recommend fine needle aspirate.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No significant abnormalities associated with the urinary tract were visualized. There were numerous intrahepatic biliary stones as well as stones within the gallbladder and common bile duct, which was dilated, most consistent with a chronic partial obstruction. Correlate these findings with lab work. If liver enzymes are elevated, consider antibiotics, Ursodiol, Denamarin, etc. If liver values are normal, consider Ursodiol. It is possible that this may cause some discomfort. You could consider a mild pain medication and supportive care. If liver values were to spike, or patient begins to feel much worse, I would recommend a recheck ultrasound to make sure a complete biliary obstruction has not developed.

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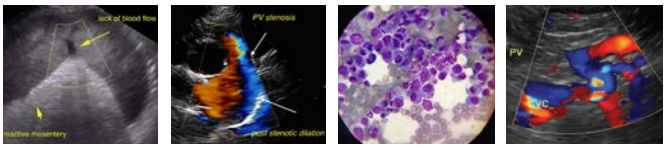

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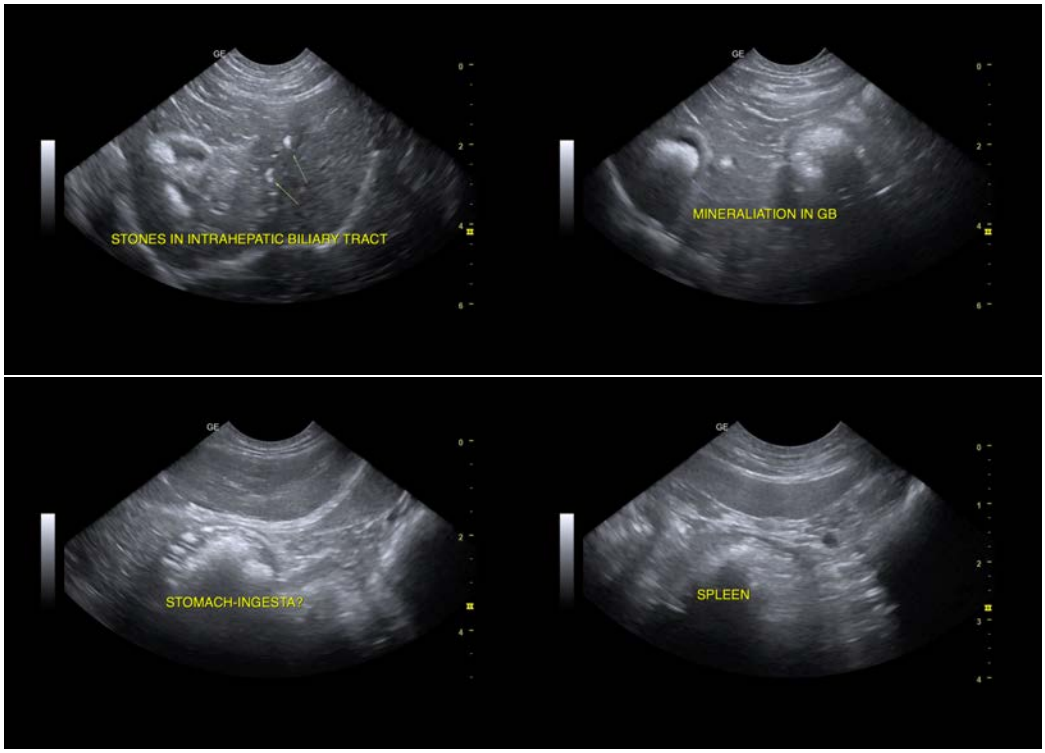

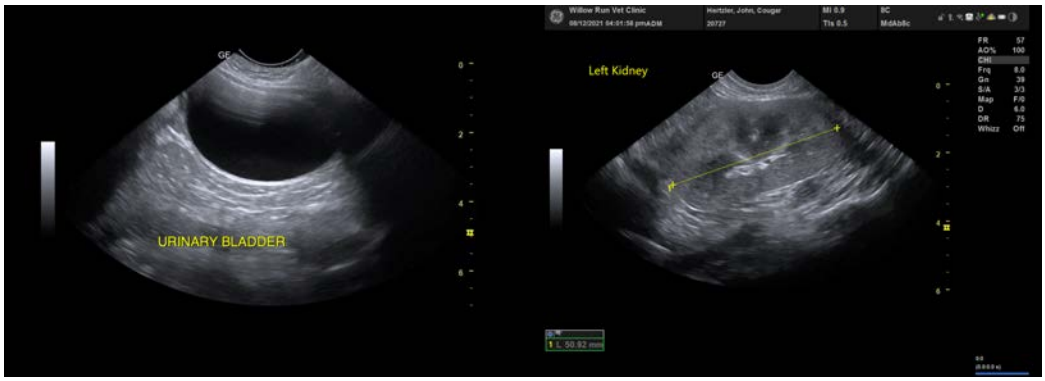

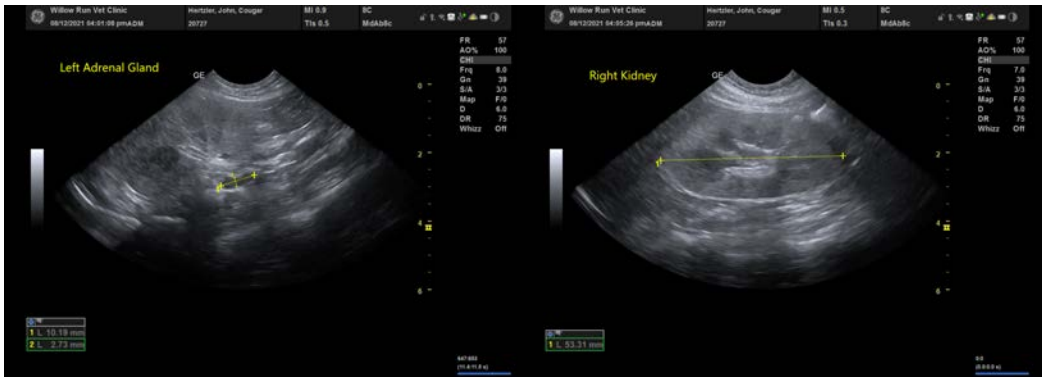

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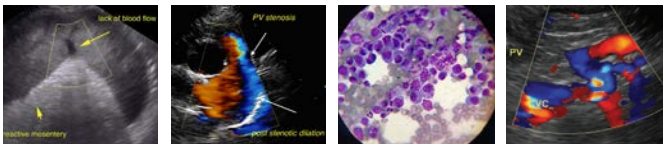

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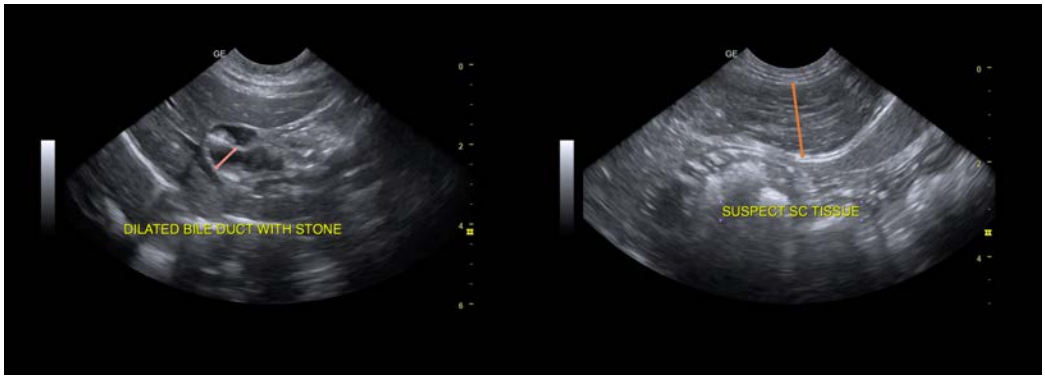

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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