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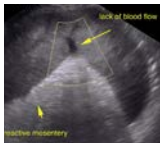
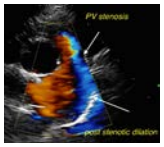
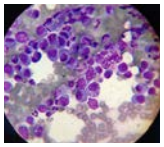
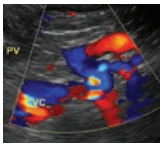

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1-800-838-4268 info@sonopath.com

PATIENT

Maggie Marshall

SPECIES

Canine

BREED

Yorkie X

SEX

Spayed Female

AGE

16 Years 9 Months

WEIGHT

6 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Megan Cassels-Conway

HOSPITAL NAME

Central Broward AH

REFERRING VET

Dr. Janeen Lezcano

INVOICE

43354

DATE

6/21/23

PRESENTING CLINICAL SIGNS

P has hx of previous cholangiohepatitis episodes, which appear to have been bacterial in origin since they responded very well to clavamox +/- metronidazole. P has DM and is currently on Vetsulin. P also had hx of HAC, pituitary depended. Treated for several years with vetoryl but ACTH stims for last several years have been normal while pet off vetoryl. P is on long term denamarin adv, ursodiol and gabapentin. P is also on RC LF dry food due to hx of pancreatitis. P also had a large dermal mass removal performed in 4/2023.

Abnormal PE/Chem/CBC/UA Results: 6/19/23: CBC: neut: 10857, monos: 846H; Chem/IDEXX: ALP: >2000, ALT: 1812, GGTP: 50, t bili: 2.2; UA: SG: 1.025, 2+ prot, 3+ bilirubin. 5/20: CBC: NSF; Chem: ALP: 1695, ALT: 78 4/2023: PRE-OP: CBC: plt ct: 574H, Chem: ALP: 1032, K: 6.3H, T4: 1.0, UA: SG: 1.022, 2+ prot, 2+ gluc, fructosamine: 291, BA: pre: 2.0, post: 30H 9/2022: CBC: WBC: 23.5H; Chem: ALT: 817H, ALP: 764H, GGTP: 16, t bili: 0.5, UA: SG: 1.021, 2+ prot, quiet sediment 5/2022: last ACTH stim test: pre: 7.4, post: 9.7

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 (3.7 cm) with numerous cortical cysts and small non-obstructive nephroliths. Overall echogenicity is slightly hyperechoic with poor 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, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.6 cm) with numerous small cortical cysts, the largest of which measures 0.62 cm, and small non-obstructive nephroliths. Overall echogenicity is slightly hyperechoic with poor 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, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.30 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 0.67 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.

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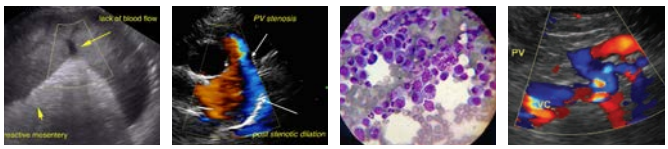

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Liver

The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is hyperechoic and heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a hyperechoic nodule visualized in the left side of the liver measuring 1.66 cm x 1.56 cm.

The gall bladder lumen is significantly distended. Some areas of the wall appear mildly thickened with adherent debris. There is a large amount of primarily non-organized echogenic debris and a focal shadowing mineralization most consistent with a cholelith measuring 0.70 cm. The bile duct appears mildly dilated and tortuous with no evidence of an obstruction visualized.

Gastrointestinal

The stomach contains moderate fluid/shadowing ingesta. 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 mild to moderate fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Duodenum wall measures 0.39 cm. Jejunum wall measures 0.33 cm. Visualized peristalsis appears normal/slightly decreased. 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.

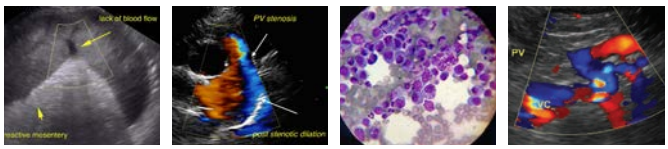
Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, 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

- Decreased corticomedullary distinction in both kidneys with numerous cortical cysts and small non-obstructive nephroliths – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.

- Large, heterogeneous, hyperechoic liver with a hyperechoic nodule on the left side – 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. The appearance of the hyperechoic lesion trends towards a m ore benign process, but an early neoplastic lesion cannot be ruled out.



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- Large gallbladder debris with a small cholelith and mild gallbladder wall thickening – Findings could be consistent with cholecystitis. Consider medical management.
- Mild to moderate shadowing ingesta and fluid visualized within the gastric lumen – Findings are most consistent with a non-fasted patient.
- Focal areas of moderate small intestinal fluid dilation with mild/subjective wall thickening – Findings could be consistent with enteritis and secondary ileus, an obstructive process (none visualized), or could be associated with a no-fasted patient and progressive ingesta.

SECONDARY FINDINGS

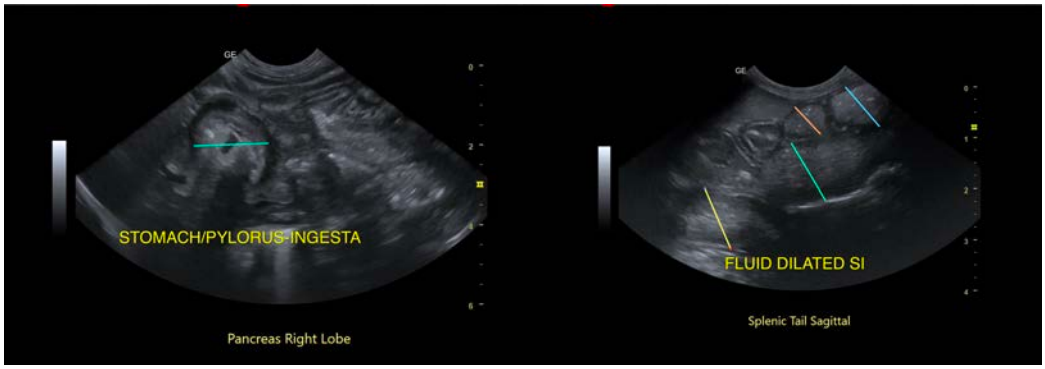
- Prominent, mottled right limb of the pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Many of the changes described on today's scan are similar to those described in the scan performed in 9/2022. There is significant fluid dilation of some of the areas of small intestine on today's exam, which has not been previously visualized. This could be associated with enteritis, a non-fasted patient, etc. Additionally, there is a hyperechoic nodule visualized in the liver on today's exam, which has not been previously described. The appearance of this hyperechoic nodule trends towards a more benign etiology, but continued monitoring is warranted, as I cannot rule out an early neoplastic lesion.

There is a moderate to large amount of debris visualized within the gallbladder and a cholelith. These changes have been described previously, but given the severe liver enzyme elevations, recurrent cholangiohepatitis/cholecystitis is a concern. This patient should likely be on chronic Ursodiol therapy. If typical treatment for cholangiohepatitis does not improve liver enzyme values, you could consider a contrast CT scan to better evaluate, or possibly a cholecystectomy as a last resort.

The changes visualized associated with the kidneys are mildly progressive and most consistent with chronic progressive renal disease. Periodically, this patient should have a blood pressure evaluation, urinalysis and culture.



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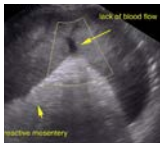
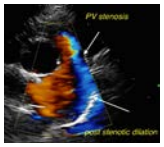
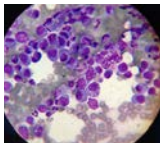
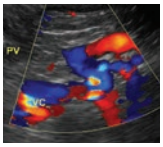

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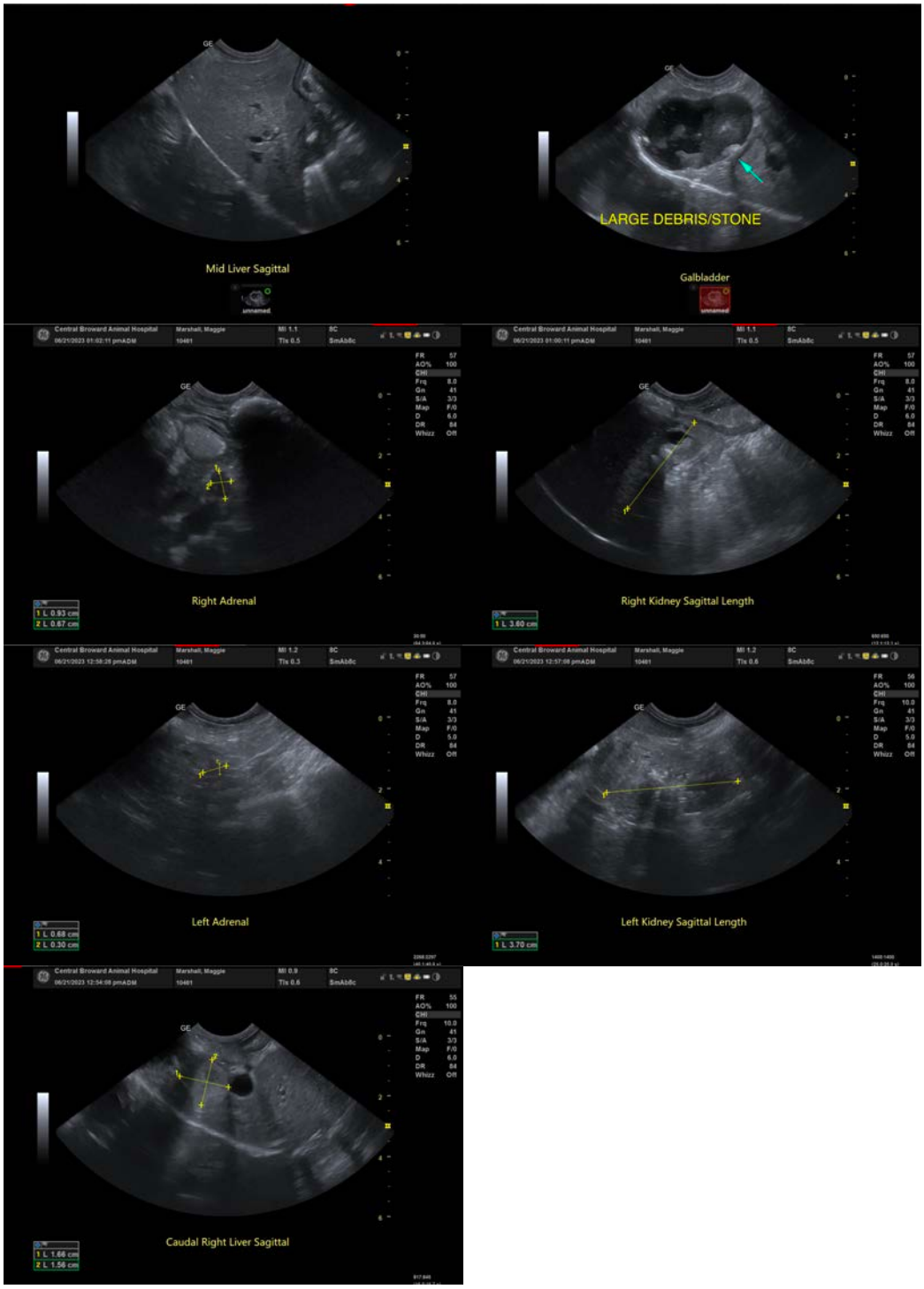

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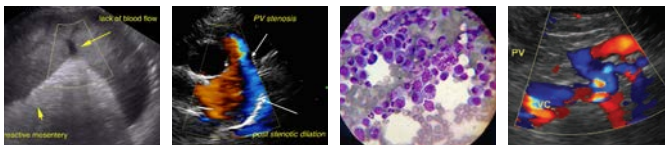

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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