

PATIENT	PRESENTING CLINICAL SIGNS
Sophie Miner	History: Mild increase ALT (180) and BUN (43) with mild proteinuria (UPC 0.9) on annual lab monitoring.
SPECIES	ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN
Canine	Urinary System The urinary bladder is minimally distended with anechoic urine, and luminal sediment is not present. The bladder wall is focally thickened and there are irregularities to the mucosal surface. The ureteral papillae, trigone and pelvic urethra are of normal appearance, and the ureters are not visible (normal). No masses or calculi are noted. Urethra visualized to 3.0 cm.
BREED	
Mixed	
SEX	Both kidneys exhibit mildly decreased corticomedullary differentiation. There are small, non-obstructed nephroliths present within the renal cortex. There is no evidence of pyelectasia or hydronephrosis. The proximal ureters are not visible (normal). The left kidney is 3.9 cm in length. The right kidney is 4.1 cm in length.
Spayed Female	
AGE	Adrenal Glands The adrenal glands are both identified in their normal locations. They are normal in size and shape with appropriate parenchymal echogenicity and normal phrenic vasculature. The left adrenal gland height is 5.2 mm at the cranial pole and 5.6 mm at the caudal pole. The right adrenal gland height is 6.0 mm at the cranial pole and 5.4 mm at the caudal pole.
11 years	
WEIGHT	Spleen A 5.5 x 3.7 mm hypoechoic is noted in the body of the spleen, which does not disrupts the splenic capsule. The surrounding omentum is normal. The splenic vasculature is normal with no evidence of congestion or thrombosis, and blood flow through the splenic hilus appears normal.
14 lbs	
INTERPRETED BY	Liver The liver is diffusely hyperechoic and subjectively enlarged. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis.
Tam Mengine, DVM, DABVP (canine/feline practice)	The gallbladder is moderately distended with anechoic contents. The wall was thin and continuous with no focal lesions. The cystic and common bile ducts are normal / not visible.
IMAGING PERFORMED BY	Gastrointestinal The stomach is moderately distended with gas. The gastric wall is 3.0 mm with normal deviations due to rugal folds and exhibits appropriate wall layering. The pylorus is of normal appearance.
Dr. Tam Mengine	The visualized portions of the duodenum, jejunum, and ileum are of normal thickness with intact wall layering that exhibits the appropriate 1:3 muscularis to mucosa ratio. The duodenal wall measures 4.6 mm. The jejunal wall measures up to 2.6 mm. Intestinal motility appears normal.
HOSPITAL NAME	
Stoney Creek VH	
REFERRING VET	The visible portions of the colon have increased thickness, up to 2.1 mm, with intact wall layering. The ileocecal junction is visualized and appears normal.
Dr. Mandy Becker	
INVOICE	Pancreas The areas of the limbs and body of the pancreas are isoechoic to the surrounding mesenteric fat, with normal capsular appearance. There is no evidence of peripancreatic inflammation. The pancreatic duct appears normal.
12695	
DATE	Free Abdomen There is no evidence of free fluid within the peritoneal cavity. The omentum and intra-abdominal fat are of appropriate echogenicity. Enlarged abdominal lymph nodes are not observed. The aortic trifurcation has normal blood flow with no evidence of thrombosis.
4.6.23	



PATIENT

Sophie Miner

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Canine

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DABVP (canine/feline
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ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Bilateral chronic renal changes with nonobstructive nephrolithiasis
- Reactive hepatopathy

Secondary Findings

- Mildly thickened bladder wall
- Mildly thickened colonic wall

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The changes in the liver are non-specific and could be attributed to endocrine disease, other vacuolar hepatopathies, reactive hepatopathy, storage hepatopathy, chronic infectious or inflammatory disease (including leptospirosis), hepatic lipidosis, or less likely neoplasia. Ultrasound-guided or laparoscopic biopsies would be needed for definitive diagnosis. Recommendations include:

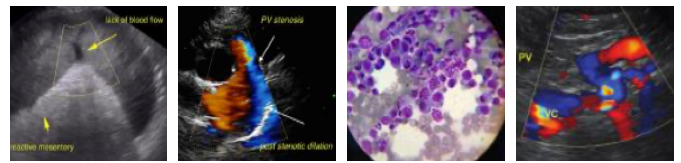
- Screening for diabetes mellitus and hyperlipidemia if not already performed
- Testing for Cushing's disease is recommended only if clinical signs support the diagnosis.
- Bile acid testing could be considered if liver elevations progress to further assess severity of hepatic disease - if elevated then liver biopsies should be considered.
- If bile acids are normal, but the ALT is increased, then initiation of liver support therapies such as SAME, Vitamin E and ursodiol, along with serial monitoring of liver enzyme levels every 2-3 months, could be initiated.

The changes in the kidneys are consistent with chronic renal disease. Findings should be correlated with laboratory values, IRIS staging and clinical signs.

The changes to the bladder wall are mild, and there is no evidence of infection on the recent urinalysis. It is possible that the patient is periodically passing small nephroliths, which might cause bladder inflammation. Treatment should be correlated to the presence of clinical signs.

The changes to the colonic wall are also mild; and in the absence of any signs of colitis, are likely incidental.





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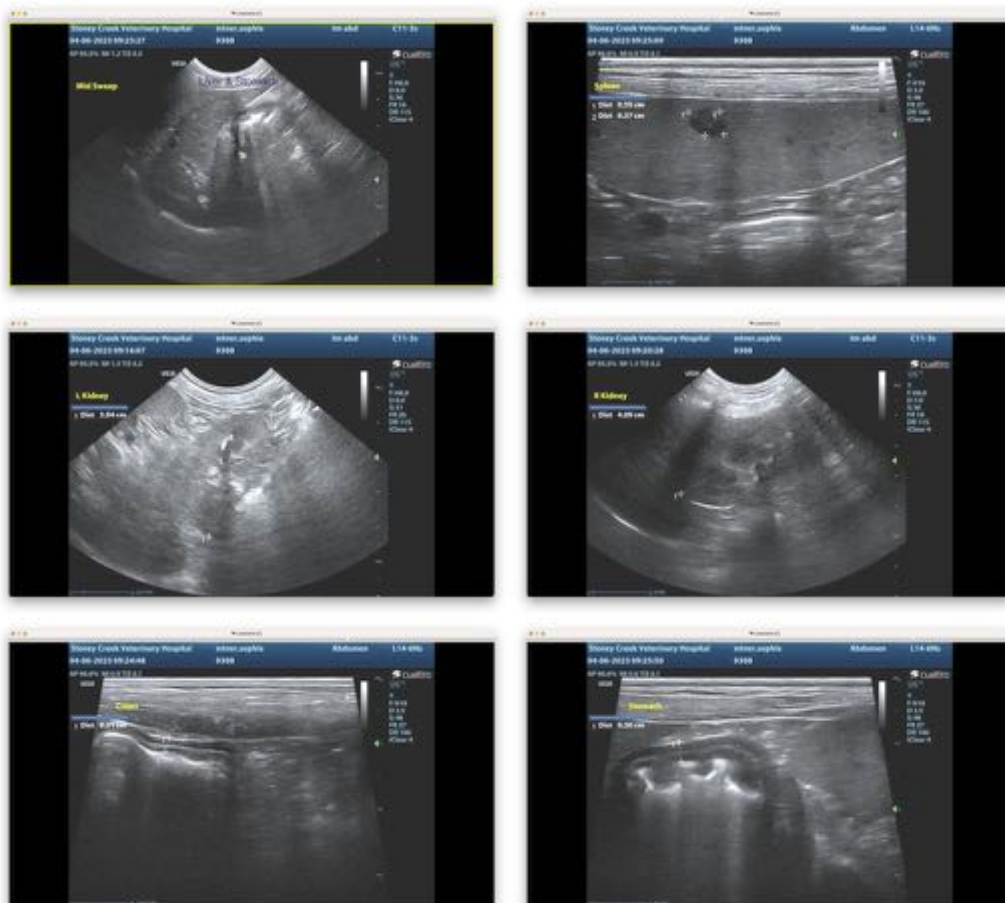
Dr. Mandy Becker

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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.

Tam Mengine, DVM, DABVP (canine/feline practice) info@SonoPath.com