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Clinical Sonography & Telecytology
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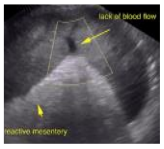
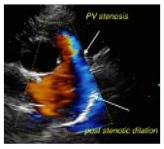
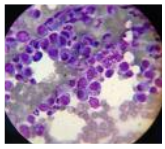
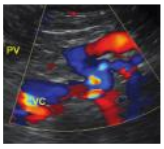




SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Panda Hammond

SPECIES

Canine

BREED

Shih Tzu X

SEX

M/N

AGE

16

WEIGHT

7.6 kg

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Dr. Belan

HOSPITAL NAME

Alpine 24/7 AH

REFERRING VET

Dr. Nelson

INVOICE

14756

DATE

8/1/23

PRESENTING CLINICAL SIGNS

History of chronic intermittent vomishion with some blood. Occurrence of vomiting has increased last few weeks. On Urinary SO for cystoliths. Given omeprazole and cerenia on the weekend and still vomiting. Also placed on low fat diet. POCUS by attending concern about pancreas.

Abnormal PE/Chem/CBC/UA Results: Mild elevation of ALT and mod to severe elevation of amylase and lipase

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and cystourethral junction exhibited normal tone. Mild nonuniform thickening of the urinary bladder wall was present. Multiple, variably sized cystic calculi with distal acoustic shadowing were present in the dependent lumen along with dependent mineral / sand. An example of a calculus measured 1.4 cm in diameter.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture. Focal, small, nonobstructive prostatic urethral lumen mineral / small calculus was present.

No evidence of pathology in the area of the aortic trifurcation.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Nonobstructive areas of small medullary renoliths were present. The left kidney measured 4.5 cm in length. The right kidney measured 5.1 cm in length.

Adrenal Glands

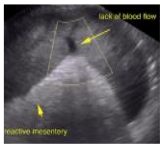
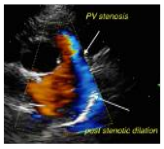
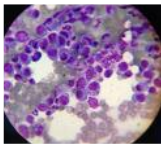
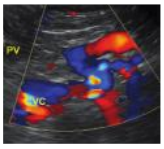
The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.42 cm width at the caudal pole and 0.34 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.41 cm width at the caudal pole and 0.56 cm width at the cranial pole.

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

Liver/ Gallbladder

The liver presented mildly enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with mildly hyperechoic gallbladder wall. The gallbladder contained moderate, inspissated yet nonorganized, hyperechoic gallbladder sludge. No

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evidence of peripheral gallbladder inflammation was noted. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented mild to moderate wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. The stomach contained a moderate amount of retained primarily anechoic fluid. The gastric body wall width measured 0.66 cm.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

Free Abdomen

Nonspecific cystic-appearing structures were noted in the mid-abdomen containing anechoic fluid were present. An example measured 1.4 cm in diameter. The structures were located adjacent to the aorta and caudal vena cava. There were no omental masses or significant omental lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Urinary bladder calculi, focal small nonobstructive prostatic urethral mineral / small calculus
- Moderate chronic renal changes with nonobstructive renolithiasis
- Low-grade hepatopathy - sonographically benign
- Moderate inspissated gallbladder sludge - consistent with immature mucocele
- Pancreatic remodeling - no evidence of significant / active pancreatitis, benign remodeling owing to age or previous inflammation with suspect chronic pancreatitis possible
- Hypomotile gastritis pattern, sonographically unremarkable small bowel

Secondary Findings

- Probable focal benign omental cyst vs. cystic lymph nodes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Potential for early infiltrative gastric mural neoplasia cannot be definitively excluded. Endoscopic gastric biopsies for histopathology would be ideal for further clarification. Empirically, continued gastroprotectant protocol Omeprazole 1.0 mg/kg PO SID over the next 3 weeks with concurrent canned hydrolyzed or limited antigen diet trial with avoidance of dry food and potential empirical therapy for helicobacter with assessment of clinical response and sonographic monitoring would be reasonable.

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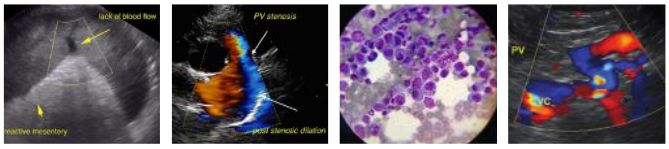

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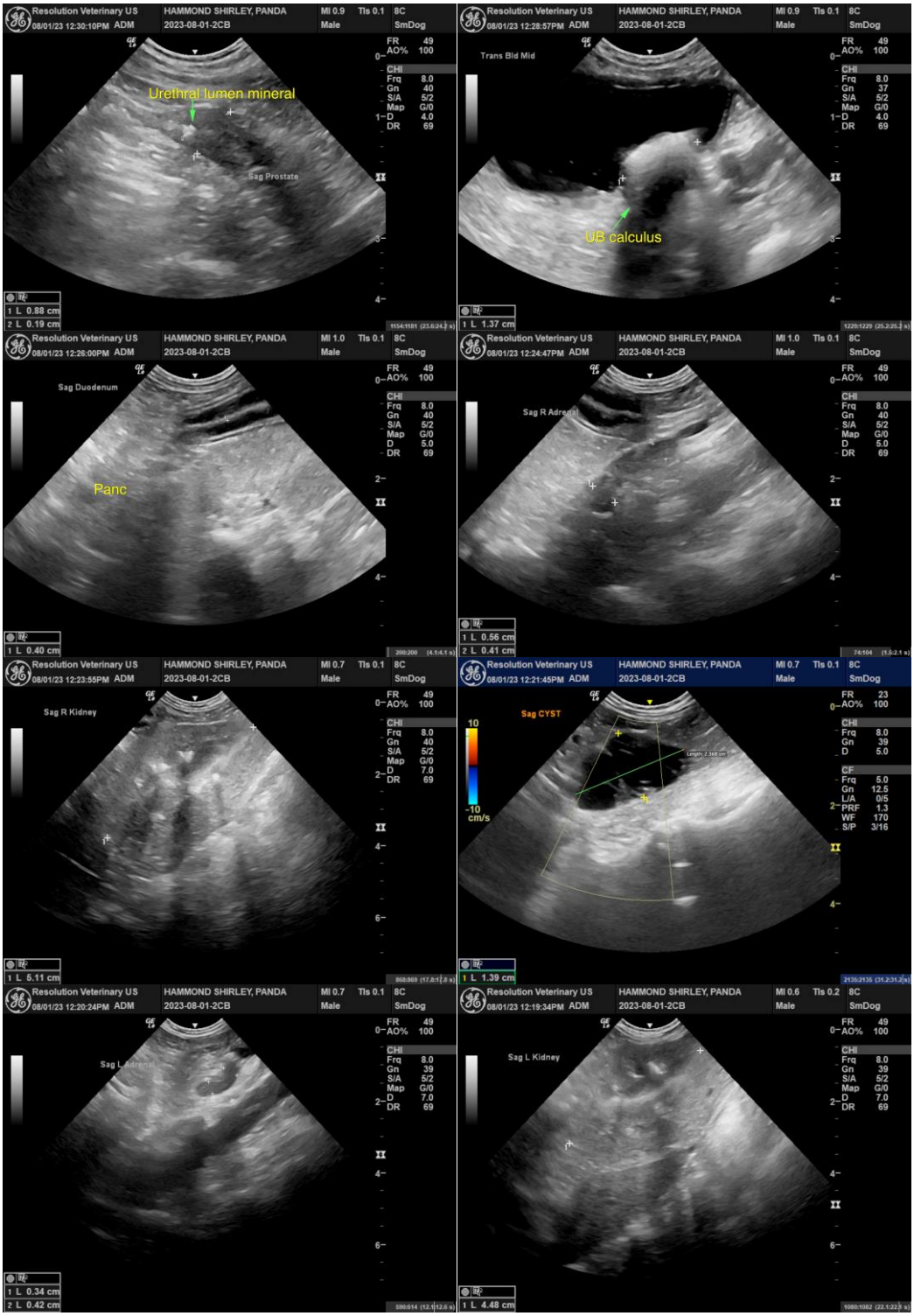
Urine C/S on a sterile urine sample is recommended if not recently done. Concurrent hepatosupportive medications including Ursodiol, if tolerated, with monitoring for evidence of progressive cholestasis may prove beneficial.



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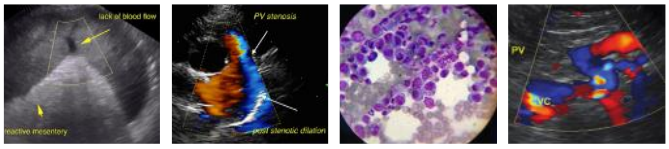

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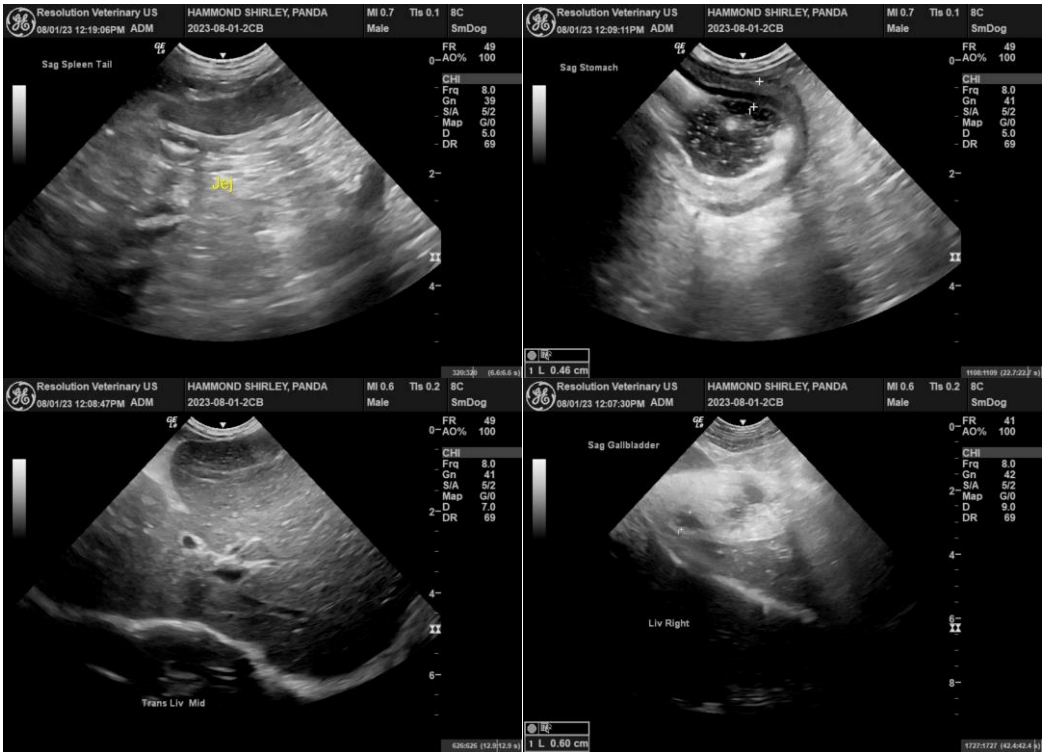

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
info@sonopath.com