



PATIENT

Bear Wiseman
48106A

SPECIES

Canine

BREED

Puggle

SEX

Neutered Male

AGE

12 years

WEIGHT

16 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Tom McNeil

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

Madison VS

INVOICE

13101

DATE

1/19/22

PRESENTING CLINICAL SIGNS

Patient presented for acute onset of vomiting, lethargy, and inappetance over the weekend. Treated at an ER with subcutaneous fluids and cerenia. pDVM radiographs revealed hepatomegaly.

Abnormal PE/Chem/CBC/UA Results: ALT 2271, ALP 1518, T Bili 1.2, Chol 388, Ca 14.5, TP 8.5, Glob 5.2,

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 0.65 cm in diameter.

The area of the aortic trifurcation was free of pathology. No evidence of medial iliac or sublumbar lymphadenopathy was noted.

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 mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 5.1 cm in length. The right kidney measured 5.4 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 0.63 cm width at the caudal pole and 0.7cm width at the cranial pole.

A well-demarcated, hyperechoic, nonmineralized, non-expansive nodule was present in the cranial pole of the right adrenal gland. The nodule did not exhibit signs of mineralization or vascular invasion. The nodule measured 0.68 cm x 0.48 cm. The overall right adrenal gland was normal in size with maintained symmetrical capsule contour, measuring 0.69 cm width in the caudal 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 exhibited potential for mild generalized enlargement yet maintained symmetrical capsule contour. Intermittent, discreetly hypoechoic, non-expansive, intraparenchymal nodules were present. An example measured 0.86 cm in diameter. The liver parenchyma was mildly nonuniform and



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Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild to moderate reattend nonshadowing ingesta/ chyme most consistent with post prandial presentation without signs of ileus, obstruction or foreign material. The ventral gastric body wall width measured 0.35 cm.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Subjective propensity for mildly prominent duodenum walls and subtle evidence of duodenal ileus were present. The duodenum wall width measured 0.55 cm. The jejunum wall width measured 0.35 cm.

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

A very scant pocket of free fluid was noted in the caudoventral abdomen. No evidence of significant peritoneal free fluid or overt Intraabdominal lymphadenopathy was noted.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Gallbladder mucocele with peripheral inflammation
- Hepatopathy exhibiting generalized parenchymal remodeling and intermittent discreet nodules
- Probable mild gastroduodenitis and suspect metabolic gastric stasis
- Heterogeneous pancreas - age-related/ patient variant, potential for low-grade to chronic pancreatitis, no sonographically consistent with active pancreatitis or neoplastic criteria
- Small nonspecific right adrenal nodule - suspect adenoma

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the patient's clinical signs and likely contributing factor to the lab work abnormalities is secondary to gallbladder mucocele with peripheral inflammation. Concurrent chronic hepatopathy and parenchymal changes including remodeling with suspected areas of nodular to regenerative hyperplasia or hepatic hematopoiesis is suspected. The potential for neoplastic hepatic parenchymal or



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hepatobiliary criteria is considered a less likely differential diagnosis. Likewise, no other overt areas of Intraabdominal neoplasia were noted as a potential cause of hypercalcemia.

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Given these findings and assuming normal clotting status, cholecystectomy with hepatic biopsies and gross visualization of the upper gastrointestinal tract and pancreas is warranted. Perioperative antibiotic use is suggested, given the potential for pericholecystic peritonitis. Three view chest radiographs are suggested prior to surgical considerations.

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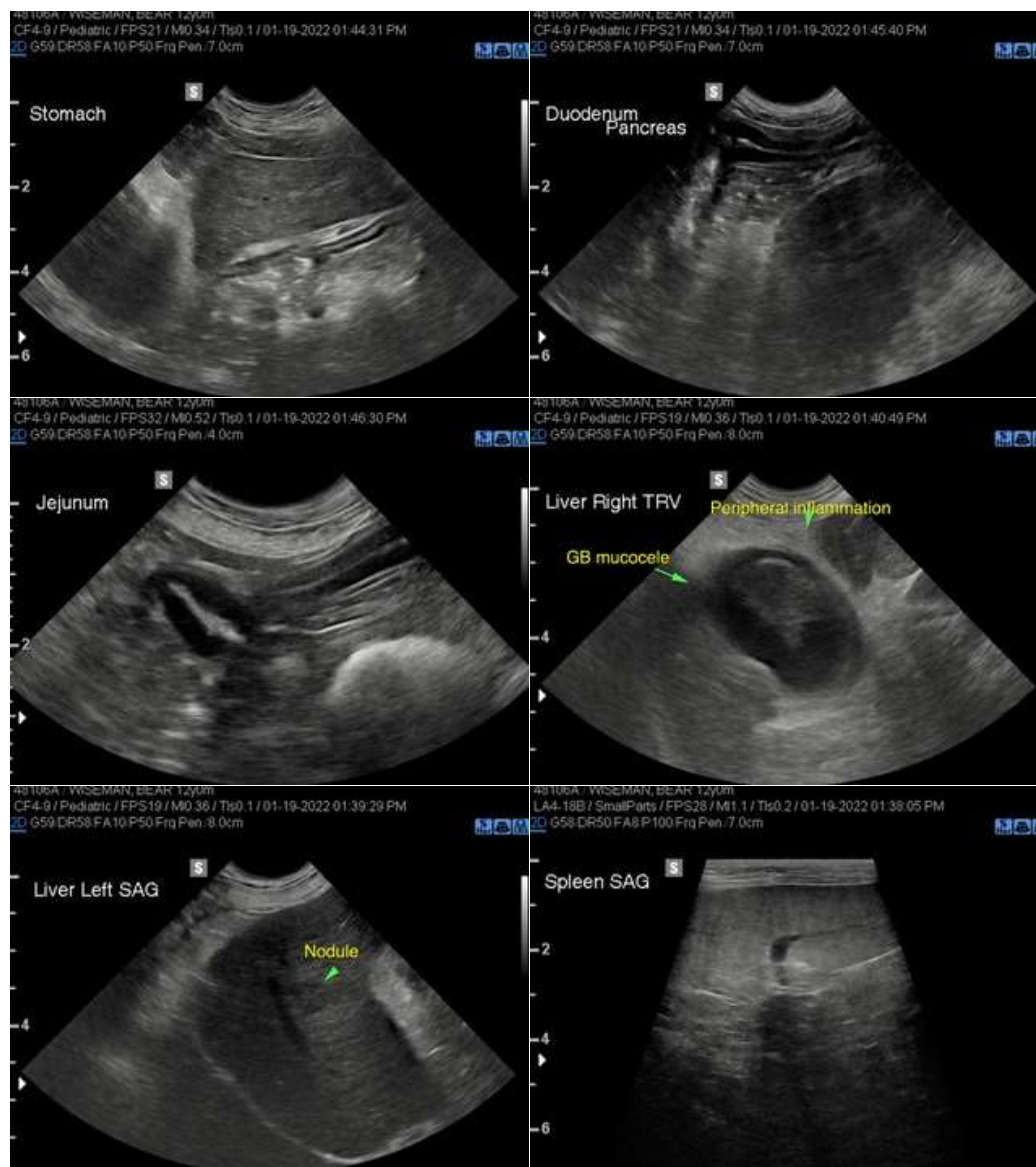
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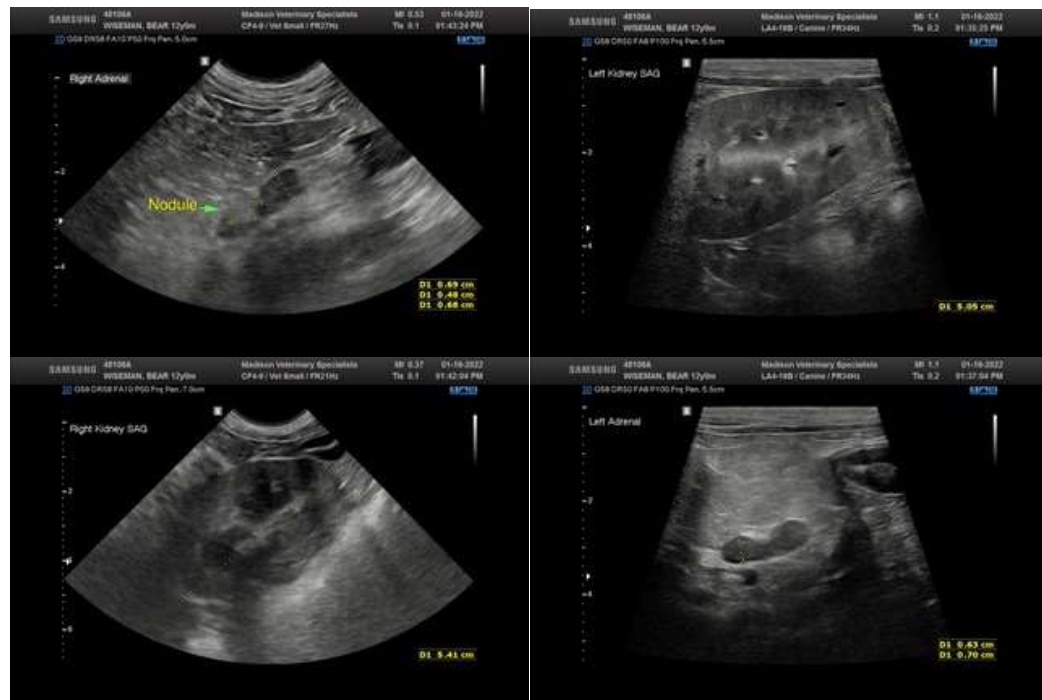
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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