

**PATIENT**

Coco Steffen 51578A

SPECIES

Canine

BREED

Chihuahua

SEX

Spayed Female

AGE

12 Years 6 Months

WEIGHT

2.7 kg

INTERPRETED BYR. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)**IMAGING PERFORMED BY**

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

Madison VS- Dr. Keller

INVOICE

16195

DATE

6/21/22

PRESENTING CLINICAL SIGNS

History: Coco presented overnight for anorexia and vomiting. Starting on 6/19, Coco ate a normal full meal but threw it up sometime in the afternoon. Has been throwing up full pieces of kibble from 6/19 without eating since then. Throws up water as soon as she drinks. Last time she vomited was around an hour before arriving at MVS. Coco is pretty weak and having difficulty standing. Owners concerned about effortful breathing and shaking. Mentation has been dull and exhausted. Usually a fast eater but now is not drinking or eating. Coco had a Busy Bone (rawhide treat) the day before signs started. Owners tried force-feeding pumpkin and she threw it up. History of chocolate ingestion 5 years ago with 'toxins' in the blood work.

Abnormal PE/Chem/CBC/UA Results: GLU- 63 (74-143) L SDMA- 71 (0-14)H CREA- 2.9 (0.5-1.8)H BUN- 51 (7-27)H PHOS- >16.1 (2.5-6.8)H LOB- 4.8 (2.5-4.5)H ALT- 3449 (10-125)H ALKP- 2129 (23-212)H GGT- 41 (0-11)H TBIL- 4.3 (0.0-0.9)H CHOL- 323 (110-320)H Na- 138 (144-160)H Cl- 96 (109-122)H RBC - 4.00 (5.65-8.87)L HCT - 24.2 (37.3-61.7)L HGB - 9.0 (13.1-20.5)L MCV - 60.5 (61.6-73.5)L

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder presented uniformly thickened urinary bladder wall isoechoic to the adjacent normal urinary bladder wall. The luminal margin of the thickened urinary bladder wall was mildly asymmetrical in contour. Urinary bladder wall thickness measured 0.36 cm. Mineralization or echogenic foci within the thickened areas of urinary bladder wall was not present. The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal 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. Aortic trifurcation was normal.

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. Pinpoint areas of medullary mineral were present and intermittent small thinly walled corticomedullary cysts. The left kidney measured 3.8 cm in length. The right kidney measured 4.4 cm in length.

Adrenal Glands

Both adrenal glands were mildly prominent in size with maintained capsule integrity. Subtle nonhomogeneous parenchyma was noted. No evidence of adrenal mineralization. The left adrenal gland measured 0.57 cm at the cranial pole and 0.73 cm at the caudal pole. The right adrenal gland measured 0.63 cm at the caudal pole.

Spleen

The spleen revealed mild enlargement with generalized splenic parenchymal splenic heterogeneity. Intermittent mildly expansive nonhomogeneous hypoechoic to focally hyperechoic nodules were present, some of which appeared to mildly distort the associated splenic capsule yet without evidence of capsule escape. An example of splenic nodule measured 1.0 cm in diameter. Splenic vascularity was normal.

Liver

The liver exhibited moderate generalized enlargement, extending caudoventrally to at least the level of the gastric axis. Mild nonuniform parenchyma was present, exhibiting moderate coarse echotexture

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and parenchymal remodeling. A solitary isoechoic mass lesion was present in the caudoventral liver, measuring approximately 5.7 cm in diameter. The mass lesion exhibited similar echogenicity and echotexture to surrounding adjacent hepatic parenchyma.

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The gallbladder was normal in size. The gallbladder wall was uniformly thickened and echogenic in appearance. This is suggestive of chronic gallbladder wall inflammation and possible fibrosis. The gallbladder was subjectively nondistended with Concurrent hyperechoic nonmineralized debris, primarily along the luminal surface with no overt evidence of post hepatic obstruction. The common bile duct was overtly normal.

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Gastrointestinal

The stomach presented mild wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. The gastric body wall measured –cm width. Mild to moderate retained anechoic fluid was present in the stomach. No evidence of mechanical pyloric outflow obstruction.

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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio with segmental propensity for mildly prominent duodenojejunal mucosa. No evidence of mechanical/metabolic small intestinal ileus pattern. The duodenum wall measured 0.44 cm. The jejunum wall measured 0.29 cm.

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

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Pancreas

The left limb, right limb, and base of the pancreas presented hypoechoic to heterogeneous echogenicity compared to adjacent omental fat. Mild asymmetrical capsule margination was present with mild variable parenchymal swelling and mild peripancreatic reactivity / inflammation. No overt evidence of neoplasia.

INTERPRETED BYR. McKenzie Daniel,
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(Canine and Feline)**Free Abdomen**

Subjective mild perihepatic to pericholecystic hyperechoic mesentery was present. No overt evidence of perihepatic or pericholecystic free fluid, although potential for small pockets of very scant peritoneal free fluid was possible.

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Intermittent, mildly prominent mesenteric lymph nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5).

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ULTRASONOGRAPHIC FINDINGS**Primary Findings**

- Bilateral chronic renal changes with pinpoint medullary mineral and small corticomedullary cysts
- Mildly prominent to nonhomogeneous bilateral adrenal glands- nonspecific, patient/age-related variant, mild adenomatous change, benign versus stress hyperplasia possible. Neoplastic criteria not overtly evident.
- Cholangitis/Cholangiohepatitis liver pattern with solitary isoechoic caudoventral mass lesion- potential for emerging hepatic neoplastic criteria cannot be excluded.

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- Subjective mild to low-grade chronic active pancreatitis
- Nonspecific splenic nodules- hyperplasia, hematopoiesis, hematomas, infection/splenitis, infarct or emerging neoplastic nodules possible.
- Gastroenteritis pattern with mild gastric hypomotility

Secondary Findings

- Mild cystitis pattern

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

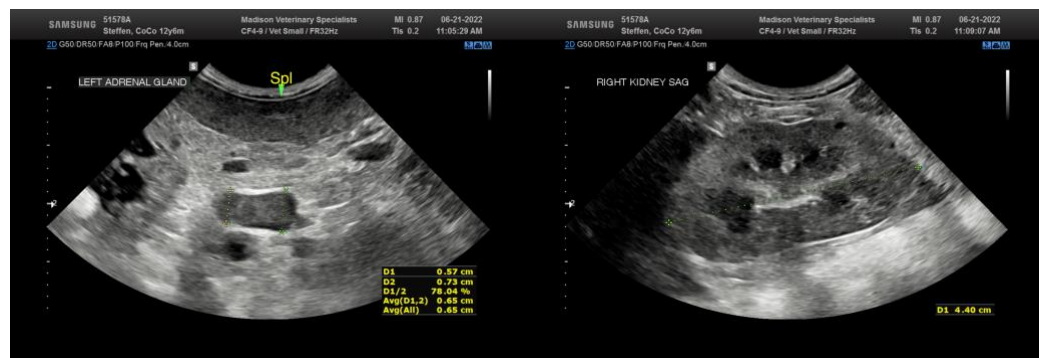
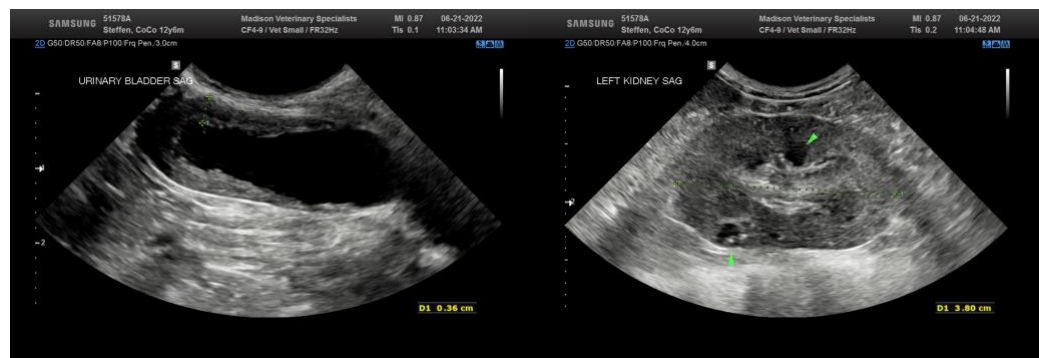
Assuming normal clotting status, and using a 25-gauge needle, hepatosplenic FNA, specifically of the isoechoic hepatic mass lesion, as well as parenchyma, to assess for evidence of inflammatory cells, with concurrent splenic nodule FNA warranted for screening cytology.

Empirically, aggressive therapy for cholangitis/cholangiohepatitis, suspect low-grade pancreatitis and gastroenteritis would be reasonable. No evidence of mechanical gastrointestinal obstructive pattern or foreign material.

Further renal staging to include full urinalysis, urine C/S and baseline UPC recommended.

Three-view chest radiographs, if not done, are recommended to assess for or rule out thoracic pathology.

Prognosis is likely dependent upon hepatosplenic cytology, if elected, as well as clinical response to empirical therapy.



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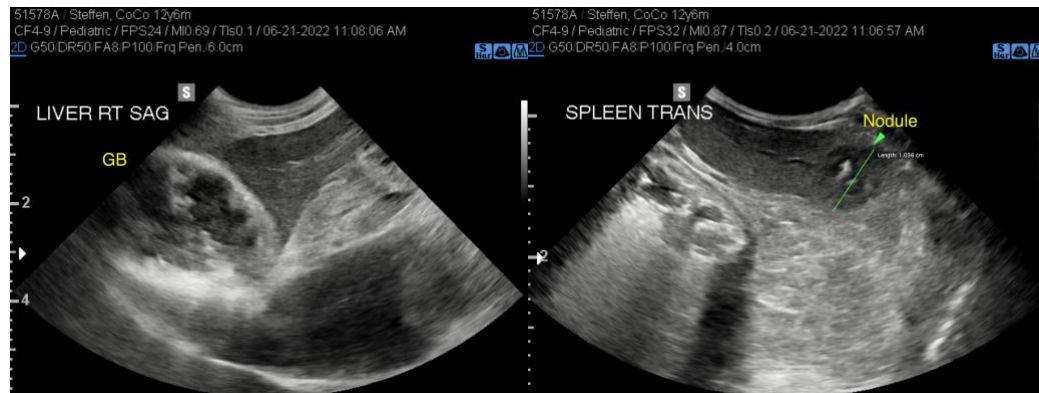
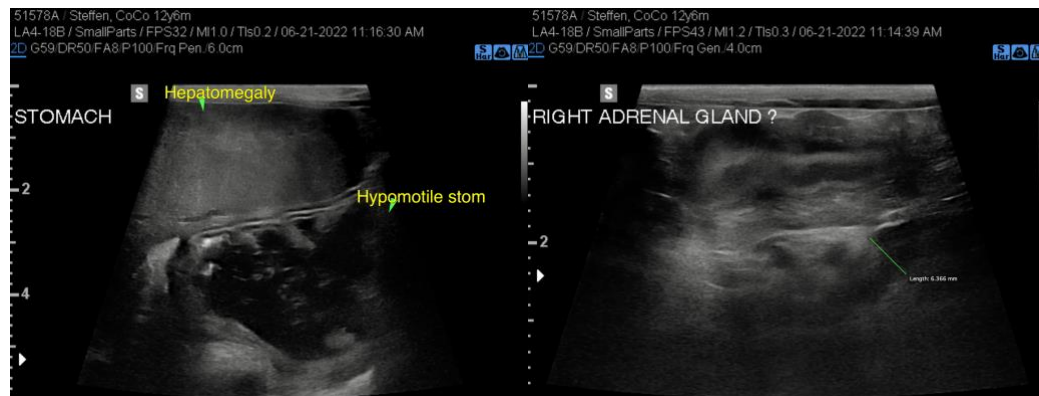
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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