


PATIENT PRESENTING CLINICAL SIGNS

Daisy Coulthard History: Concern for possible hyperadrenocorticism and GI disease based on labs. Has had hx of soft stools chronically.

SPECIES Abnormal PE/Chem/CBC/UA Results: Moderate ALP elevation. Hypoalbuminemia at 21. Elevated amylase and lipase. Distended abdomen with thin skin.

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN
BREED *Urinary System*

Chihuahua X The urinary bladder is mildly to moderately distended with anechoic urine. The wall is diffusely thickened (up to 0.53 cm) with a slightly irregular mucosal surface. No cystic calculi observed. The region of the trigone is slightly irregular in appearance.

SEX

Female Spayed The left kidney is normal in size (5.09 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Trace pyelectasia is present. There is no evidence of infarcts or hydronephrosis.

AGE

10 years The right kidney is normal in size (5.44 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Trace pyelectasia is present. There is no evidence of infarcts or hydronephrosis.

WEIGHT

10.4 kg

Adrenal Glands

The left adrenal gland is borderline enlarged (0.66 cm at cranial pole) (0.69 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

INTERPRETED BY

Andrea Nicastro, DVM,
 Diplomate ACVIM (*Small
 Animal Internal Medicine*)

The right adrenal gland is in normal size (0.47 cm at cranial pole) (0.49 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

IMAGING PERFORMED BY

Dr Sarah Barthelemy

Spleen

The spleen is normal in size (1.13 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

HOSPITAL NAME

Alpine 24-hour PH

Liver

The liver is subjectively enlarged with smooth peripheral contours. The parenchyma is isoechoic relative to the spleen and mildly heterogenous in appearance, with a few small, ill-defined hypoechoic and hyperechoic nodules/areas throughout the organ. In addition, a 0.77 target-like lesion is observed on the left side. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

REFERRING VET

Dr Pinel

The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

INVOICE

12352

Gastrointestinal

The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small

DATE

3.8.23

intestinal wall is normal to borderline thickened (up to 0.36 cm) with retention of the normal layering pattern. There is evidence of mucosal striations in several segments. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas

The pancreas is diffusely prominent in size with minimal deviation from the normal peripheral contours. The parenchyma is mildly hypoechoic relative to surrounding omental fat. No focal lesions are observed. The pancreatic duct is not overtly dilated. The mesentery adjacent to the right limb is mildly hyperechoic.

Free Abdomen

There is no obvious evidence of free fluid. A 1.40 cm slightly heterogenous lymph node is observed at the aortic trifurcation.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The diffuse hepatic parenchymal changes are most consistent with a benign process (i.e., regenerative nodular hyperplasia and or vacuolar hepatopathy). The target-like lesion on the left side may represent a regenerative nodule or an emerging tumor.
- The small intestinal changes are suggestive of a protein-losing enteropathy/lymphangiectasia.
- The pancreatic changes are suggestive of chronic active pancreatitis (mild).
- The prominent sublumbar lymph node may be secondary to lymphoid hyperplasia, reactive lymphadenitis, or less likely, emerging neoplasia.

Secondary Findings

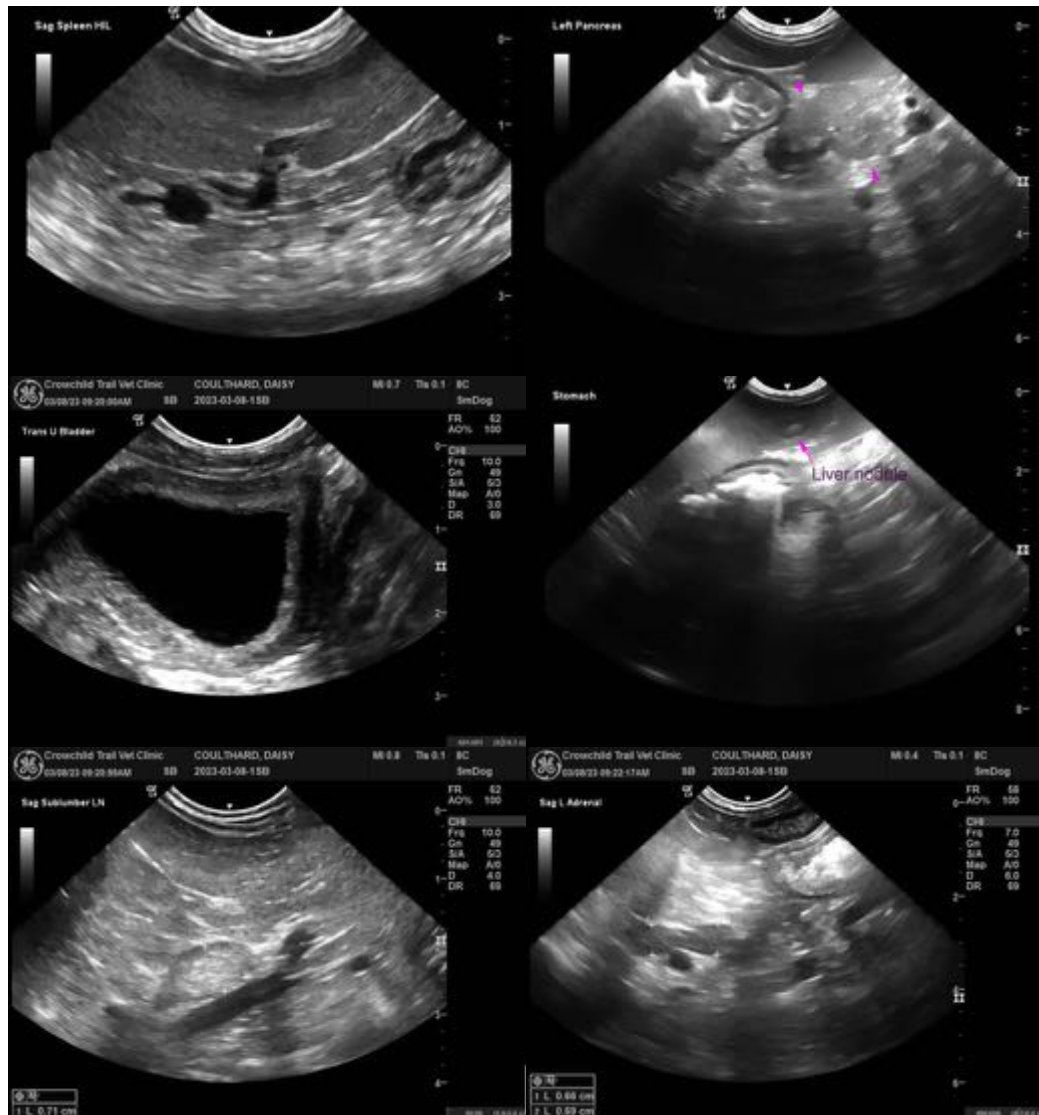
- The urinary bladder wall changes are suggestive of cystitis. The irregularity in the wall at the region of the trigone may be a normal variant for this patient, may represent an inflammatory process, or an emerging tumor.
- Bilateral chronic renal changes with subtle dystrophic mineralization
- Borderline left adrenomegaly

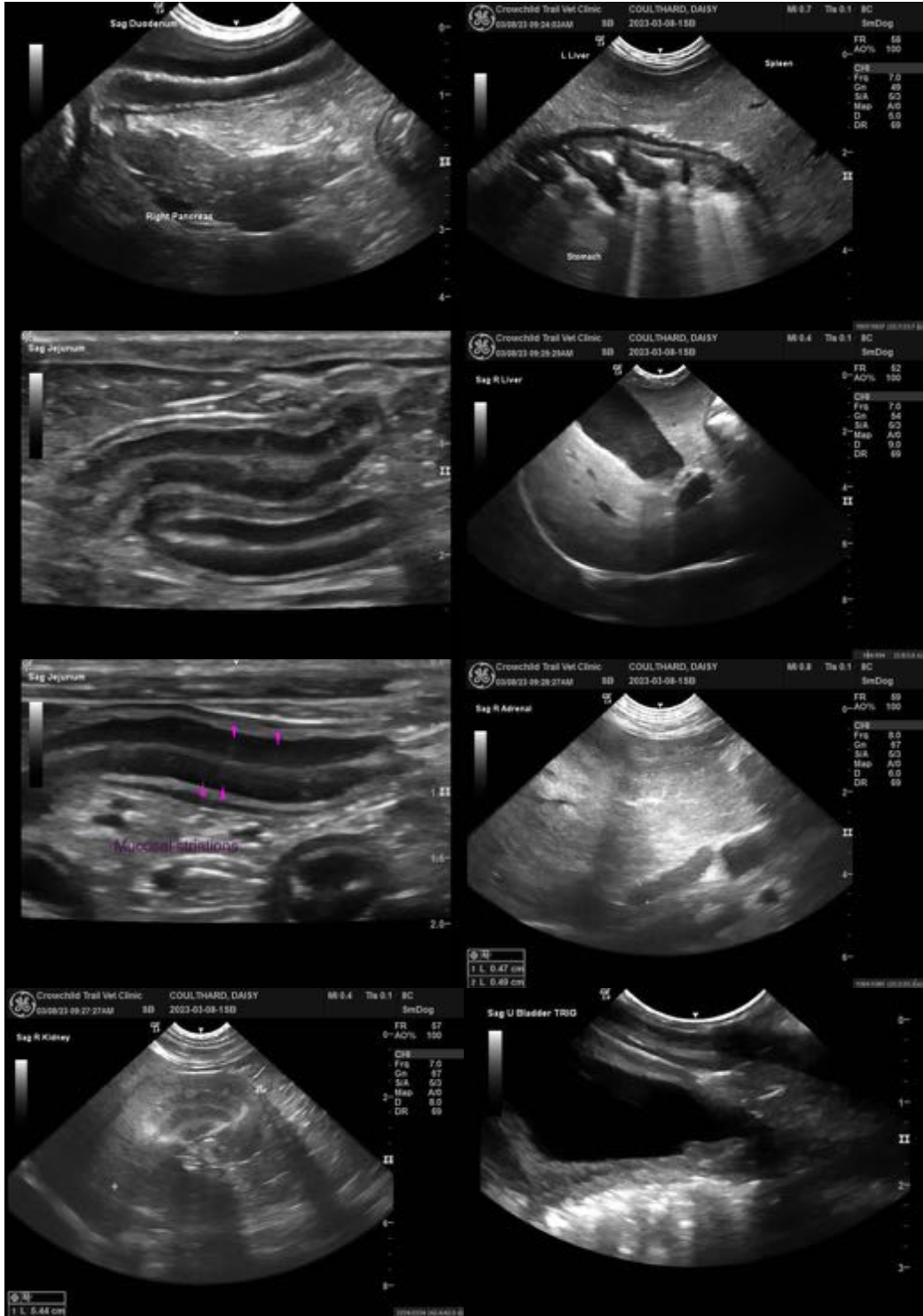
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the liver changes, serial monitoring (i.e., every 3 months) of the patient's liver values is recommended. If liver values continue to increase, a repeat abdominal ultrasound +/- hepatic tissue sampling may be warranted. The left liver nodule should also be rechecked sonographically in 2-3 months to assess for progression.
- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test.
- Regarding the GI changes and hypoalbuminemia, consider the following:
 1. Fecal evaluation for ova and Giardia
 2. Malabsorption panel, including serum cobalamin and folate, TLI and PLI
 3. Low-fat, limited antigen diet trial

4. Ultimately, endoscopic or surgical GI biopsies may be necessary to get a definitive diagnosis.

- Given the bilateral renal changes a urinalysis +/- a urine culture and sensitivity should be considered. If proteinuria is present, also consider a UPC.







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.

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