

**DATE PRESENTING CLINICAL SIGNS**

2/4/23

Today presented for vomiting and liquid diarrhea for approximately 1 week. Initially just diarrhea, then vomiting started; 3 x within last 3 days, last time was yesterday. Has history of eating things like Chick-fil-A. On exam p is QAR with lean BCS and tense abdomen (p is nervous, usually comes in on behavior meds but not today). Muzzled as precaution. Due to temperament and plan for AUS did not do rads today.

**PATIENT**

Coco Calderon

**SPECIES**

Canine

**BREED**

Labrador Retriever

**SEX**

Intact Male

**AGE**

3/19/09

**WEIGHT**

56 Pounds

**INTERPRETED BY**Beth Johnson, DVM  
DACVIM**HOSPITAL NAME**

Perry Hall AH

**REFERRING VET**

Dr. Hatzigiannakis

**INVOICE**

45111

Current Medications: cerenia 60 mg SID and metronidazole 250 mg 1.5 po BID to start this afternoon.

Lab Results: Mild BUN increase, snap cPL abnormal.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Patient sedated Dexdomitor.

Stat Report: Not requested.

Imaging Performed By: Andi Parkinson, BS, RDMS.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Prostate is symmetrically enlarged (3.92 cm wide) with smooth margins that are well differentiated from surrounding tissue. Normal bilobed shape is maintained. Parenchyma is diffusely hyperechoic. Several small anechoic cysts are noted. No mineral is noted.

The right kidney is normal in size (7.04 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (7.65 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. A 1.6 cm cortical cyst is noted in the cranial pole of the left kidney. There is no evidence of pyelectasia, mineral or infarcts observed.

**Adrenal Glands**

The right adrenal gland is normal in size (2.58 cm long x 1.03 cm at the cranial pole and 1.02 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (2.44 cm long x 0.97 cm at the cranial pole and 0.74 cm at the caudal pole), shape and contour. A hyperechoic nodule is noted in the cranial pole. Nodule does not disrupt normal shape and/or architecture. Visible surrounding vasculature appears normal.

**Spleen**

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). A 3.2 m x 2.2 cm mildly heterogeneous, non-cavitated, primarily hypoechoic, non-capsule disrupting nodule/mass is noted in the mid spleen. Splenic vasculature appears normal.

**Liver**

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture diffusely. The right liver appears mildly more heterogeneous and slightly hypoechoic with

prominent portal markings, with a discrete, almost emerging mass-like appearance. No other focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

### ***Gastrointestinal***

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

### ***Pancreas***

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

### ***Free Abdomen***

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

The left testicle is visualized without evident pathology. The right testicle contains a 2.2 cm x 2.7 cm cystic lesion.

Heart base and pericardium are unremarkable without any obvious pathology. If cardiac function evaluation is desired, a full echo is recommended.

## **PRIMARY FINDINGS**

- **Hypoechoic splenic nodule/mass** – likely represents a benign lesion such as a hematoma, nodular hyperplasia, extramedullary hematopoiesis, etc. However, infiltrative neoplasia such as round cell neoplasia versus other can mimic benign lesions and cannot be ruled out.
- **Mildly heterogeneous right liver** – This is a non-specific finding and trends in appearance toward benign with top differentials being nodular hyperplasia, steroid vacuolar hepatopathy, extramedullary hematopoiesis, or possibly a chronic or resolved inflammatory disease. Less commonly infiltrative round cell or metastatic neoplasia cannot be ruled out.
- **Hyperechoic adrenal nodule (cranial pole left adrenal gland)** – Differentials include primary adrenal cortical adenoma or adenocarcinoma, pheochromocytoma, myelolipoma, adrenal hyperplasia secondary to pituitary disease or metastatic disease. Ultrasound alone cannot differentiate between functional and non-functional nodules and/or between benign and malignant disease. Small nodules without other evidence of abdominal disease (to suggest metastatic disease) and/or clinical signs (to suggest adrenal disease) are most often incidental and should be monitored.

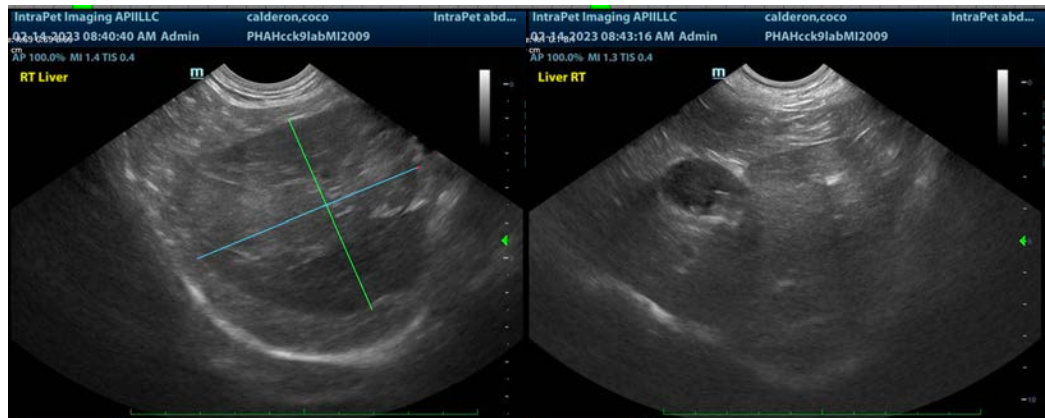
## SECONDARY FINDINGS

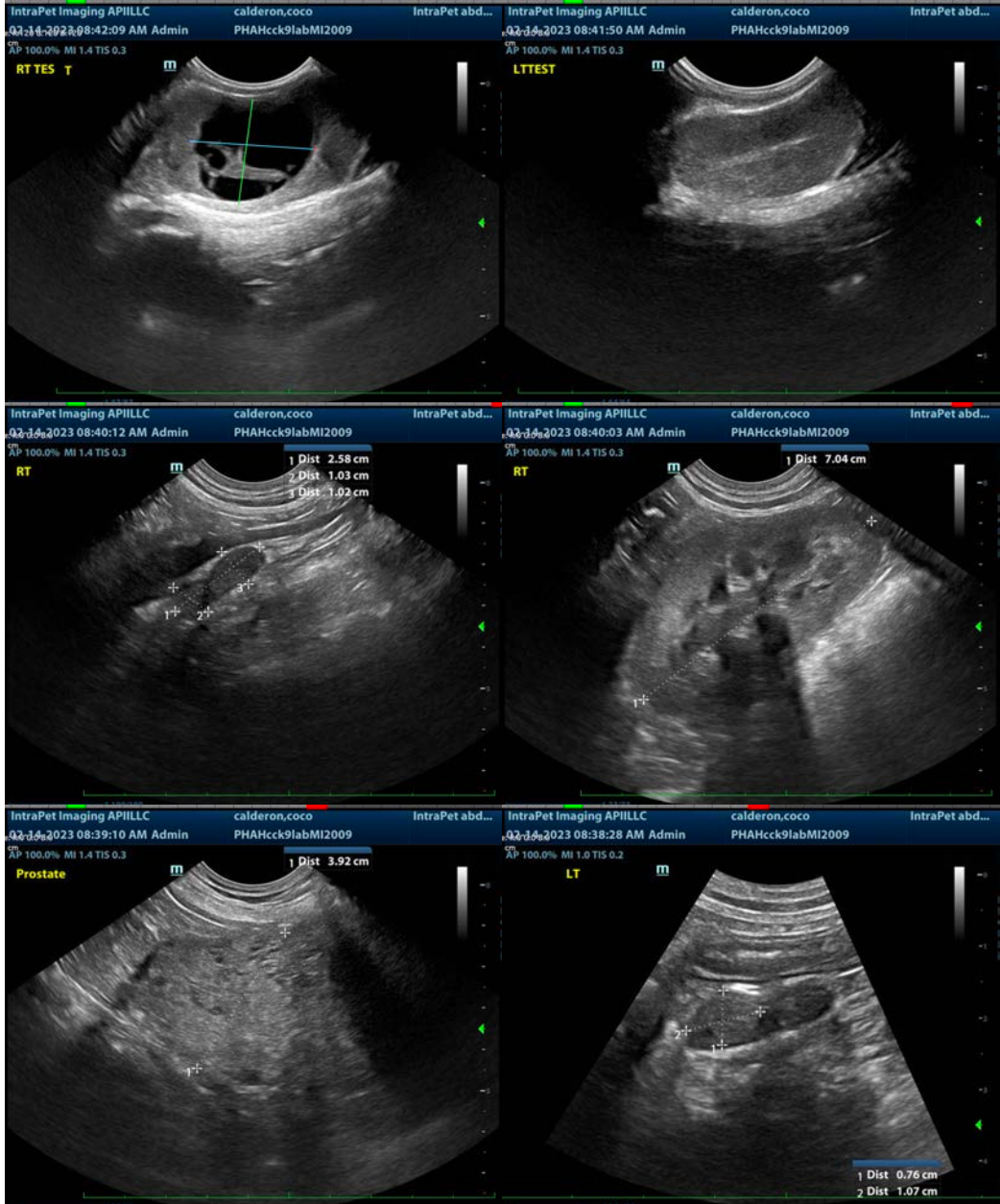
- **Benign Prostatic Hyperplasia with cysts** – Prostatic findings are most consistent with Benign Prostatic Hyperplasia (BPH) and concurrent benign prostatic cysts. Active prostatitis cannot be ruled out. Infiltrative neoplasia cannot be ruled out but is considered less likely.
- Left renal cortical cyst
- **Cystic nodule in the right testicle** – Both benign and malignant differentials are present. However, appearance trends toward benign.

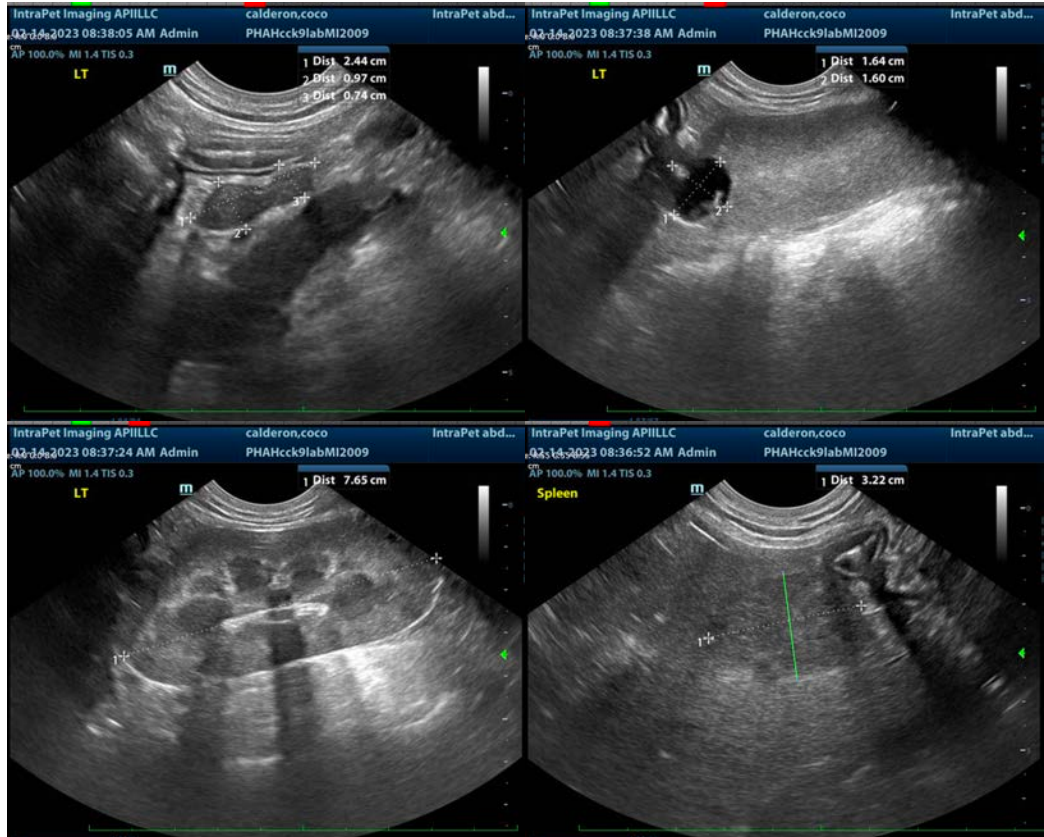
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Likely the majority of the pathology described above is unrelated to this patient's presenting clinical signs of vomiting and diarrhea. However, infiltrative round cell neoplasia could be an underlying cause resulting in everything. Therefore, first recommendations are three view thoracic radiographs for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated, followed by fine needle aspirates of the spleen and right liver if patient's coagulation status is appropriate.

Additionally, if there is any chronicity or intermittent flare ups of the gastrointestinal signs, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function. A baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism. Otherwise, if this is an acute process, supportive/symptomatic medical management of gastroenteritis with antiemetics, gastroprotectants, empirical deworming with a 5-day course of Panacur, a probiotic such as Visbiome or Provable, and potentially a short transition to a bland or easy to digest diet could be considered with reevaluation if clinical signs persist.







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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