

**DATE PRESENTING CLINICAL SIGNS**

8.10.2023 PU/PD, inappropriate eliminations.

**PATIENT**

Current Medications: Benazapril.  
 Lab Results: Low screening T4 (with normal FT4). Low screening cortisol with response on ACTH stim.  
 Hypothenuric urine and proteinuria.  
 Date of Previous IntraPet Ultrasound: No previous.  
 Sedation: Not required to complete full diagnostic ultrasound.  
 Stat Report: Not requested.  
 Imaging Performed By: Stephanie Warga RDCS, RVT.

**SPECIES**

Canine

**BREED**

Pit Mix

**SEX**

Spayed Female

**AGE**

1/5/2011

**WEIGHT**

56 lbs

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

Charm City VH

**REFERRING VET**

Dr. Hansen

**INVOICE**

14045

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

Urinary bladder is adequately 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.

Left kidney is normal in size (3.77 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 a 1.40 cm in diameter cortical cyst in the cranial pole. Pyelectasia is noted (0.70 cm in the transverse view). There is no evidence of mineral or infarcts observed.

Right kidney is normal in size (5.87 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. Pyelectasia is noted (0.63 in the sagittal view). There is no evidence of mineral or infarcts observed.

**Adrenal Glands**

Adrenal glands are mildly enlarged plump/swollen in size (left 1.10 at the cranial pole, 0.82 cm at the caudal pole) (right 0.87 cm at the cranial pole, 0.89 cm at the caudal pole). Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**Spleen**

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). Multifocal well-demarcated hyperechoic homogenous nodules are noted. Splenic vasculature appears normal.

**Liver**

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. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

**Gastrointestinal**

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign

material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

Diffusely, the visible small intestines are normal in wall thickness and layering. 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. However, in the midabdomen there is a focal area of small bowel that contains an approximately 2.40 x 3.90 cm in size intramural/possibly intraluminal mass.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

#### ***Pancreas***

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

#### ***Free Abdomen***

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

### **ULTRASONOGRAPHIC FINDINGS**

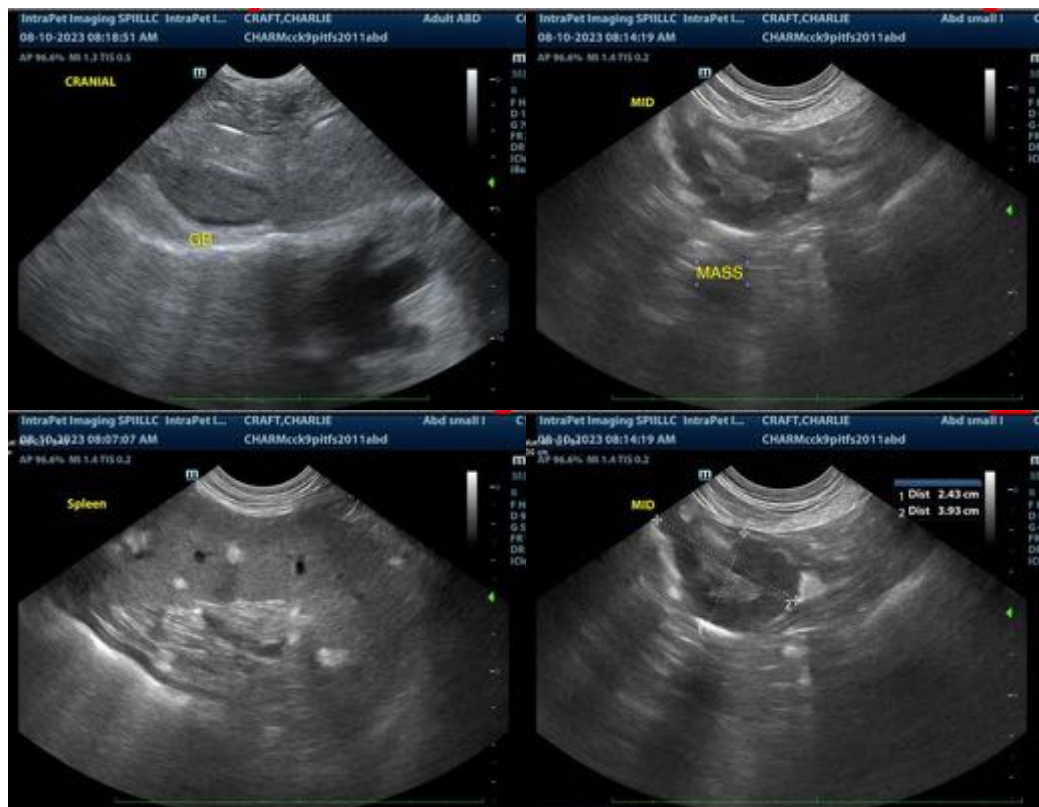
#### **Findings**

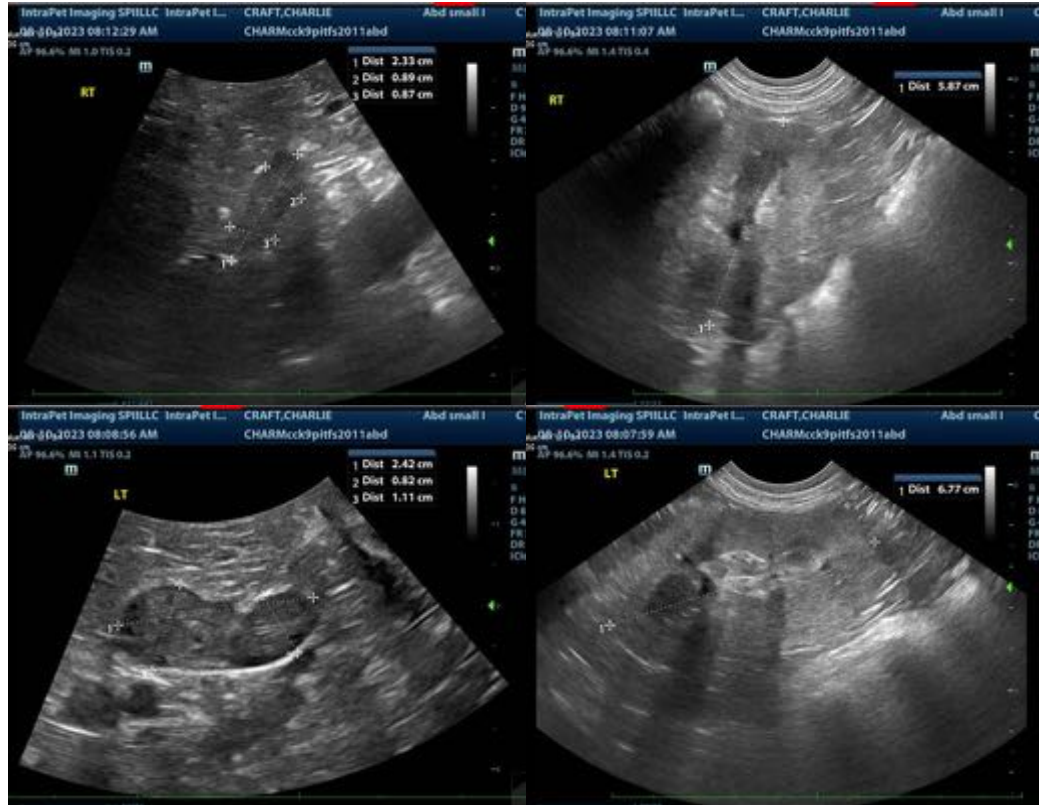
- An intramural/intraluminal small bowel mass - Differentials for which include a leiomyoma vs leiomyosarcoma, vs other infiltrative neoplasia (i.e., round cell neoplasia vs other). A benign inflammatory lesion also cannot be definitively ruled out without tissue sampling.
- Bilateral adrenomegaly – consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism.
- Gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.
- Hyperechoic splenic nodules – most consistent with benign myelolipomas. Other differentials such as fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or metastatic disease cannot be ruled out, but are considered less likely.
- Bilateral pyelectasia is noted with a cortical cyst in the left kidney – Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.

### **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- A fine-needle aspirate of the bowel mass can be considered (if coagulation status of the patient is appropriate).
- Alternatively, an exploratory laparotomy for planned bowel mass resection could be consistent with.

- Prior to surgery, if not recently evaluated, three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.
- Given the mild adrenomegaly, if not recently evaluated, a blood pressure should be evaluated.
- It's possible in my clinical experience for bowel mass (especially leiomyoma vs leiomyosarcoma) to cause PU/PD. Therefore, addressing the bowel mass is the first recommendation. However, if after resolution, clinical signs persist, more sensitive testing for hyperadrenocorticism can also be considered in the form of a low-dose dexamethasone suppression test. Further testing however, is not recommended in the face of concurrent illness. s





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.

**Beth Johnson, DVM DACVIM**  
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