

**DATE PRESENTING CLINICAL SIGNS**

2/9/23

Puzzle has a history of high-grade/aggressive oral melanoma diagnosed in July 2021. It was excised and treated with melanoma vaccine and there has been no local recurrence. His submandibular lymph node at the time did show spread to the nodes. Thoracic radiographs have been normal, the last was done in August. His owner noticed perceptible weight loss at home despite a good appetite about 3 weeks ago and doubled his food intake. He was brought in for a weight check and has lost 3 lbs since November. He has a history of IVDD diagnosed in May of 2022 and mitral and tricuspid regurgitation diagnosed in March of 2019. His echocardiogram in April of 2022 was stable, low grade regurgitation with no progression and not requiring medication; he has a grade 1-2/6 murmur. He received surgery for the back and biopsy of a concerning lesion in his T13 vertebra in July 2022. He has recovered well from the surgery and the biopsy showed degenerative changes to the vertebral body with no cancerous cells identified. He has rare episodic cerebellar ataxia since July 2020 with no cause identifiable on MRI or CSF tap. Episodes are typically under 10 minutes long and occur only once every several months; no therapy was recommended by his neurologist. He has had no recent vomiting or diarrhea. Since his back surgery he has had more difficulty passing stools.

**PATIENT**

Puzzle Flynn

**SPECIES**

Canine

**BREED**

Brittany Spaniel

**SEX**

Neutered Male

**AGE**

7/22/09

**WEIGHT**

34 Pounds

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

Frederick Road VH

**REFERRING VET**

Dr. Cannon

**INVOICE**

44962

**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.

The right kidney is normal in size (5.17 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 (5.08 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.

**Adrenal Glands**

The right adrenal gland is normal in size (2.19 cm long x 0.72 cm at the cranial pole and 0.82 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 0.63 cm at the cranial pole and 0.64 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

### ***Spleen***

Spleen is generally normal in size and shape with a smooth capsular contour. Parenchyma is diffusely nodular in appearance characterized by small discrete hypoechoic nodules. 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. No 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 visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is 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. Hyperechoic mucosal fogging or speckling is noted. Small intestinal motility appears adequate (1-3 contractions per min). This is a very subtle/mild finding. The lumen is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction or foreign material noted.

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.

A prominent medial iliac lymph node is noted measuring 1.43 cm x 0.55 cm with an overall hyperechoic appearance.

### ***Other***

There is no evidence of pericardial or heart base pathology noted in these images at this time.

## **ULTRASONOGRAPHIC FINDINGS**

- **Splenic micronodular hyperplasia pattern** – This nodular change is often associated with benign aging nodular hyperplasia. Infiltrative neoplasia, however, including both early hemangiosarcoma as well as round cell neoplasia cannot be ruled out, especially given this patient's history.
- **Subtle mucosal speckling** – Mucosal speckling is often present with inflammatory bowel disease (IBD). It is not specific for type or severity of disease. Mild speckling change can occur as a normal patient variant in the post-prandial state, especially given this patient's visible evidence of this being a post-prandial state.

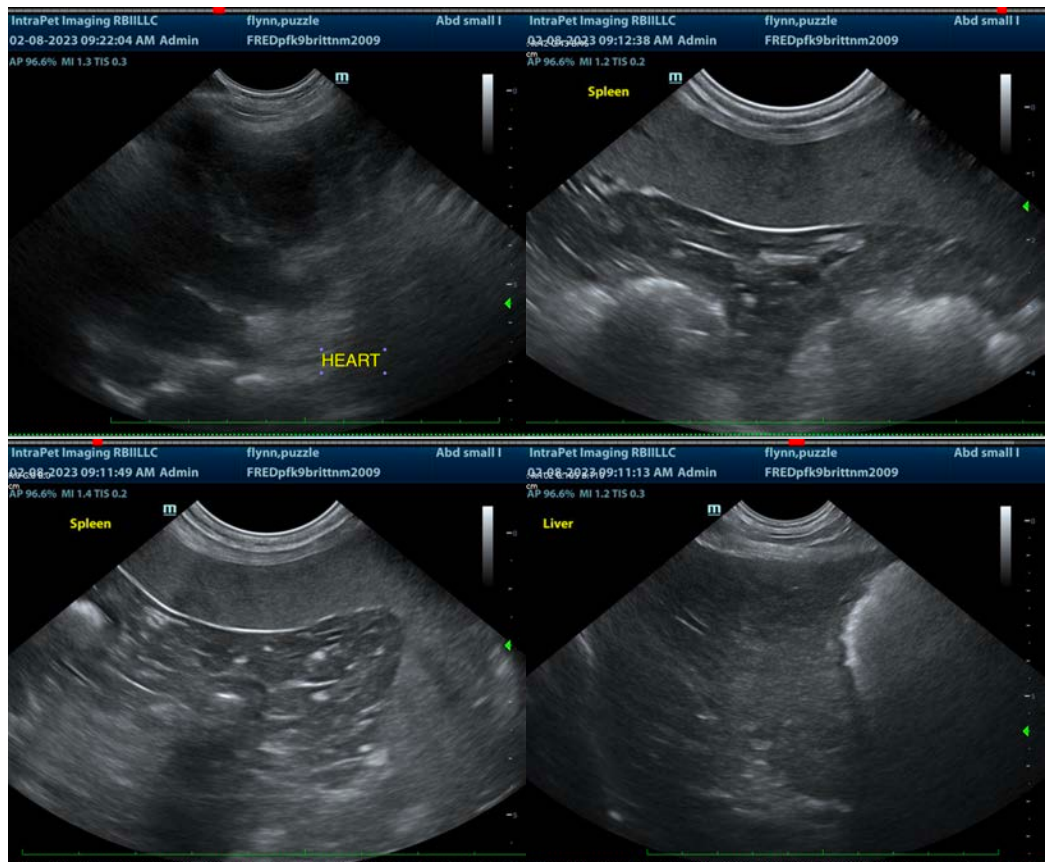
- **Prominent medial iliac lymph node** – Both reactive lymphadenopathy as well as infiltrative neoplasia are differentials and cannot be fully differentiated without tissue sampling. However, the appearance of this node trends in appearance towards benign.

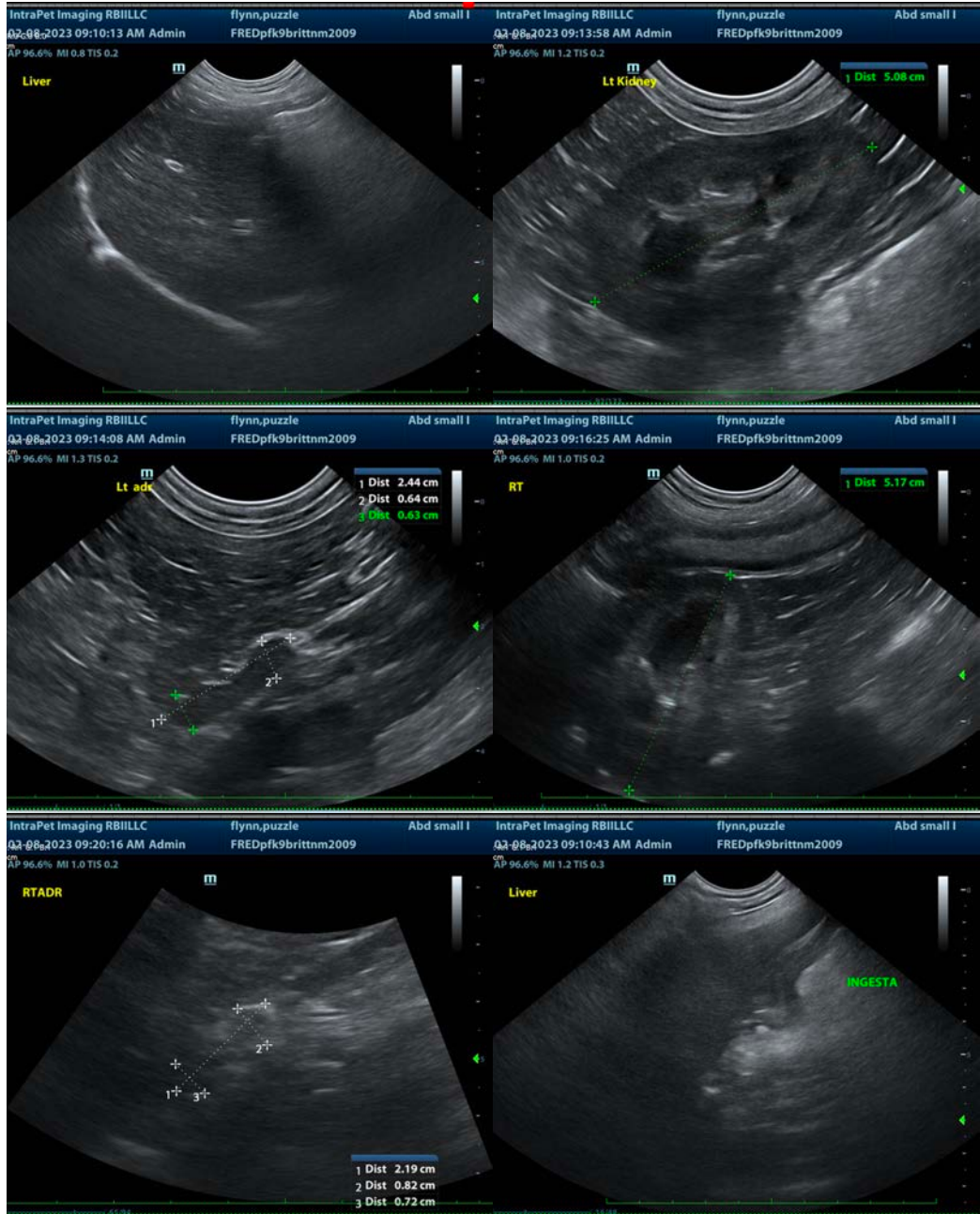
### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

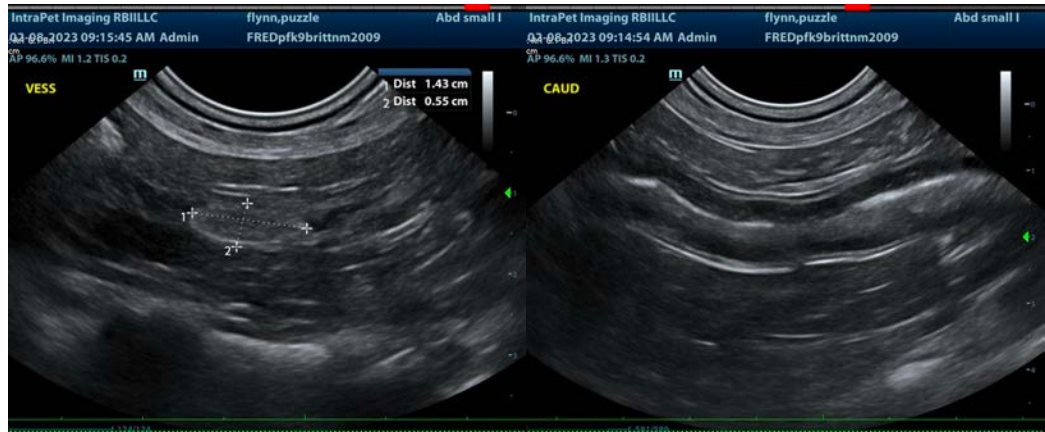
As is reportedly already pending, recheck metabolic health screen with close attention to the kidneys is recommended with a CBC/Chem panel, electrolytes, a urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

Fine needle aspirates of the spleen +/- the medial iliac lymph node could be considered if patient's coagulation status is appropriate.

The mucosal speckling is very subtle and likely a post-prandial change in this patient. However, given the reported weight loss, further evaluation of digestion and absorption function could be pursued via a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory.







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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