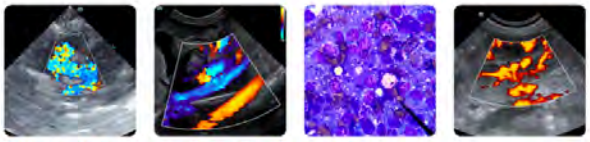




**PATIENT**

Fluff Agius

**SPECIES**

Feline

**BREED**

DLH

**SEX**

MN

**AGE**

6 years

**WEIGHT**

11 lbs

**INTERPRETED BY**

Beth Johnson, DVM DACVIM

**IMAGING PERFORMED BY**

Dr. Ryan Leal

**HOSPITAL NAME**

Wellesley Animal Hospital

**REFERRING VET**

Dr. Ryan Leal

**INVOICE**

12008

**DATE**

5/27/2026

## PRESENTING CLINICAL SIGNS

Pt presents for evaluation of jaundice - noted yesterday. Doing OK at home -- eating/drinking/urinating/defecating normally. Some decreased energy. History of vomiting food/bile relatively consistently. UTD on vaccines (FVRCP/Rabies.) Negative Fecal 2023. Indoor only. No travel history. Medications & doses: None. Diet: Iams Kibble and Sheeba Wet. Per records: This is third episode of jaundice. Historical episodes have some decreased appetite but otherwise fairly stable patient) 2022 - jaundice. labwork - CBC WNL, chem: hyperglobulinemia (8.2), ALT 219, GGT 7, tbili 5.6, remainder WNL. Negative FeLV/FIV SNAP. Resolved with clavamox and dexSP injection. 2/2026 - Jaundice. CBC WNL. Chem: Glob 5.6, ALT 256, ALP 127, GGT 8, tbili 4.5, remainder WNL (including fPL). Resolved with Dexamethasone SP single injection and Clavamox (1 week). Recommended AUS, HP diet, and possible IBD treatment. Patient sedated for imaging with butorphanol/dexmedetomidine

Abnormal PE/Chem/CBC/UA Results: PE: BCS 6/9, diffusely jaundice (moderate), mild/moderate gingivitis CBC/Chem/UA: Pending.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The 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.

The right kidney is normal is size (4.48 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 is size (4.05 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 (0.4 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

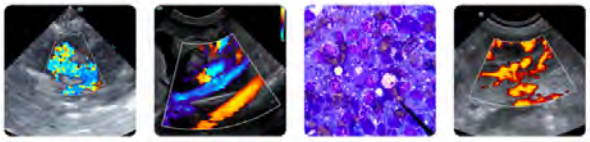
The left adrenal gland is normal in size (0.26 cm at cranial pole and 0.23 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

### *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). No focal nodules or masses are observed. Splenic vasculature appears normal.

### *Liver*

Liver is subjectively enlarged (swollen contour) with a diffusely mildly coarse architecture and subtly increased portal markings. Mildly mixed echogenic changes are noted diffusely. No focal lesions are observed. The vena cava appears subjectively dilated compared to the portal vein, but that's consistent with dexdomitor sedation and there appears to be normal portal vein branching reducing the suspicion for shunting.





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The gallbladder is non-distended in size. The wall is subjectively mildly thick and hyperechoic measuring 0.2 cm. Luminal contents are primarily anechoic. The cystic and common bile duct are diffusely tortuous and subjectively mildly dilated with no definitive ultrasonographically visible cause of obstruction noted all the way to an ultrasonographically normal appearing duodenal papilla.

### *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 or foreign material noted. Pyloric outflow tract appears patent.

The visible small intestine demonstrates areas of moderate to severely thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. The lumen of the small intestine 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*

Pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and has a mildly irregular undulating contour. Parenchyma is coarse with mixed echogenic remodeling noted. The pancreatic duct appears mildly dilated and subjectively tortuous.

### *Free Abdomen*

There is no visible free peritoneal effusion noted in these images.

Mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

## ULTRASONOGRAPHIC FINDINGS

- The hepatobiliary changes are non-specific but indicate a possible microscopic hepatopathy. Both benign differentials such as abacterial or lymphoplasmacytic cholangiohepatitis, hepatic lipidosis, other benign, infectious, or inflammatory hepatopathy, as well as infiltrative neoplasia such as round cell neoplasia i.e. lymphoma versus other are differentials and cannot be differentiated without tissue sampling.
- Mild inflammatory bowel disease (IBD) pattern – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No loss of layering or distinct characteristics of malignancy are present. Therefore, differentials cannot be further ranked without tissue sampling.
- Concurrent chronic low-grade smoldering pancreatitis/ "triaditis" can't be ruled out and should be suspected in the face of appropriate clinical signs.
- Mildly reactive mesenteric lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.

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## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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.

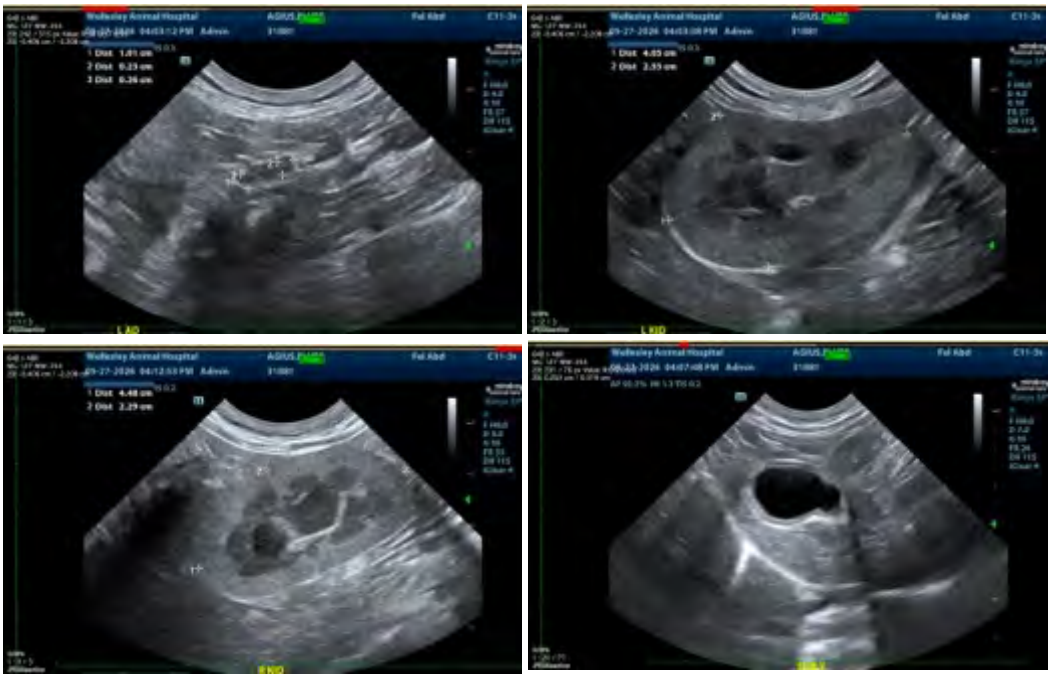
Fine needle aspirates of the liver are recommended if patient's coagulation status is appropriate.

If a cytologic diagnosis is unable to be obtained, and flare ups continue, biopsies of the GI tract being sure to include ileum, if possible, as well as biopsies of the liver may be necessary for a definitive diagnosis and therefore to further guide ongoing medical management.

In the meantime, advanced imaging such as an abdominal contrast CT scan could also be considered to more definitively evaluate vascularity and rule out non-visible shunting.

As described above, shunting is not believed to be a top differential based on these images but can't be definitively ruled out.

In the meantime, treatment recommendations include fluid therapy, anti-emetics, gastroprotectants, hepatic nutraceuticals such as ursodiol and/or Denamarin, and broad-spectrum antibiotics. Nutritional support is critical to prevent/manage concurrent hepatic lipidosis, so appetite stimulants and/or, if indicated, feeding tube placement is also recommended.



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**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.

**Beth Johnson**, DVM, DACVIM
info@sonopath.com