



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT** Whisper Bourque **PRESENTING CLINICAL SIGNS** Presented for lethargy and hyporexia. Has been urinating but small amounts.

**SPECIES** Abnormal PE/Chem/CBC/UA Results: Painful abdomen and urinary bladder was slightly firm but not hard. ALT moderately elevated as well as bilirubin with mild icterus. Hyperkalemia at 6.1.

Feline

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED** *Urinary System*

Siamese

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with incidental suspended lipid in a cat, possibly combined with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

**SEX**

Spayed Female

**AGE**

16 Years

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The left kidney measured 3.25 cm. The right kidney measured 3.02 cm.

**WEIGHT**

3.5 kg

**Adrenal Glands**

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

The right adrenal gland is normal in size (0.52 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.47 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**IMAGING PERFORMED BY**

Dr. Sarah Barthelemy

**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.

**HOSPITAL NAME**

Fish Creek Pet Hospital

**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.

**REFERRING VET**

Dr. McKay

**INVOICE**

43874

**DATE**

7/16/23

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. Tortuous cystic and common bile duct noted, though not pathologically distended. There is no evidence of effusion or inflammation.



**PATIENT**

Whisper Bourque

**SPECIES**

Feline

**BREED**

Siamese

**SEX**

Spayed Female

**AGE**

16 Years

**WEIGHT**

3.5 kg

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Sarah Barthelemy

**HOSPITAL NAME**

Fish Creek Pet Hospital

**REFERRING VET**

Dr. McKay

**INVOICE**

43874

**DATE**

7/16/23

**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 intestine demonstrates areas of 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 is empty with no evidence of obstruction or foreign material.

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. Pancreatic duct dilation is noted.

**Free Abdomen**

There is a trace amount of anechoic free fluid in these images.

The 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.

**PRIMARY FINDINGS**

- 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 aggressive lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.
- Chronic smoldering pancreatitis is suspected.
- Small amount of anechoic free fluid noted.
- Reactive mesenteric lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.
- Gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness, however, it can also be associated with hepatobiliary disease in cats 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.

**SECONDARY FINDINGS**

- Urinary bladder debris
- Age related kidney changes



**PATIENT**

Whisper Bourque

**SPECIES**

Feline

**BREED**

Siamese

**SEX**

Spayed Female

**AGE**

16 Years

**WEIGHT**

3.5 kg

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Sarah Barthelemy

**HOSPITAL NAME**

Fish Creek Pet Hospital

**REFERRING VET**

Dr. McKay

**INVOICE**

43874

**DATE**

7/16/23

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

If not recently evaluated, a T4 is recommended.

A fine needle aspirate of the liver could be considered if patient's coagulation status is appropriate. Sampling of bile could be considered for culture and sensitivity, but empirical medical management of clinical hepatitis/Triaditis may be successful without such an invasive step.

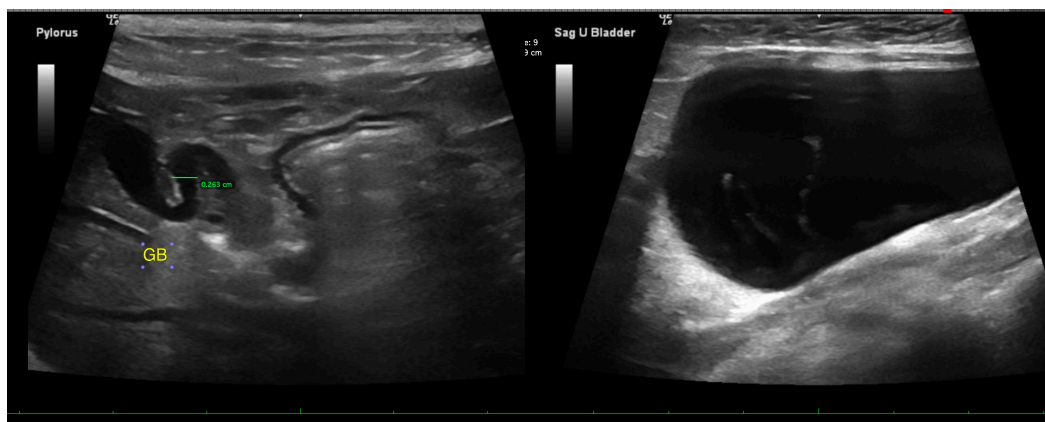
Additionally, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

Ideally, biopsies of the GI tract, being sure to include ileum if possible, are recommended to definitively diagnose and therefore manage the infiltrative bowel disease.

If biopsies cannot be obtained, empirical therapies could include a probiotic (if diarrhea is present, such as visbiome or proviable), empirical deworming with a 5-day course of Panacur and, if tolerated, a transition in diet, based on trial-and-error response, beginning with a hydrolyzed protein diet. Some patients respond to one brand/version of a hydrolyzed protein diet better than another brand, so several trials may be required.

Additional considerations could include cobalamin supplementation (unless cobalamin level is evaluated and supplementation is not warranted) and prednisolone (if not contraindicated based on patient contraindications, co-morbidities, etc.).

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.





**PATIENT**

Whisper Bourque

**SPECIES**

Feline

**BREED**

Siamese

**SEX**

Spayed Female

**AGE**

16 Years

**WEIGHT**

3.5 kg

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Sarah Barthelemy

**HOSPITAL NAME**

Fish Creek Pet Hospital

**REFERRING VET**

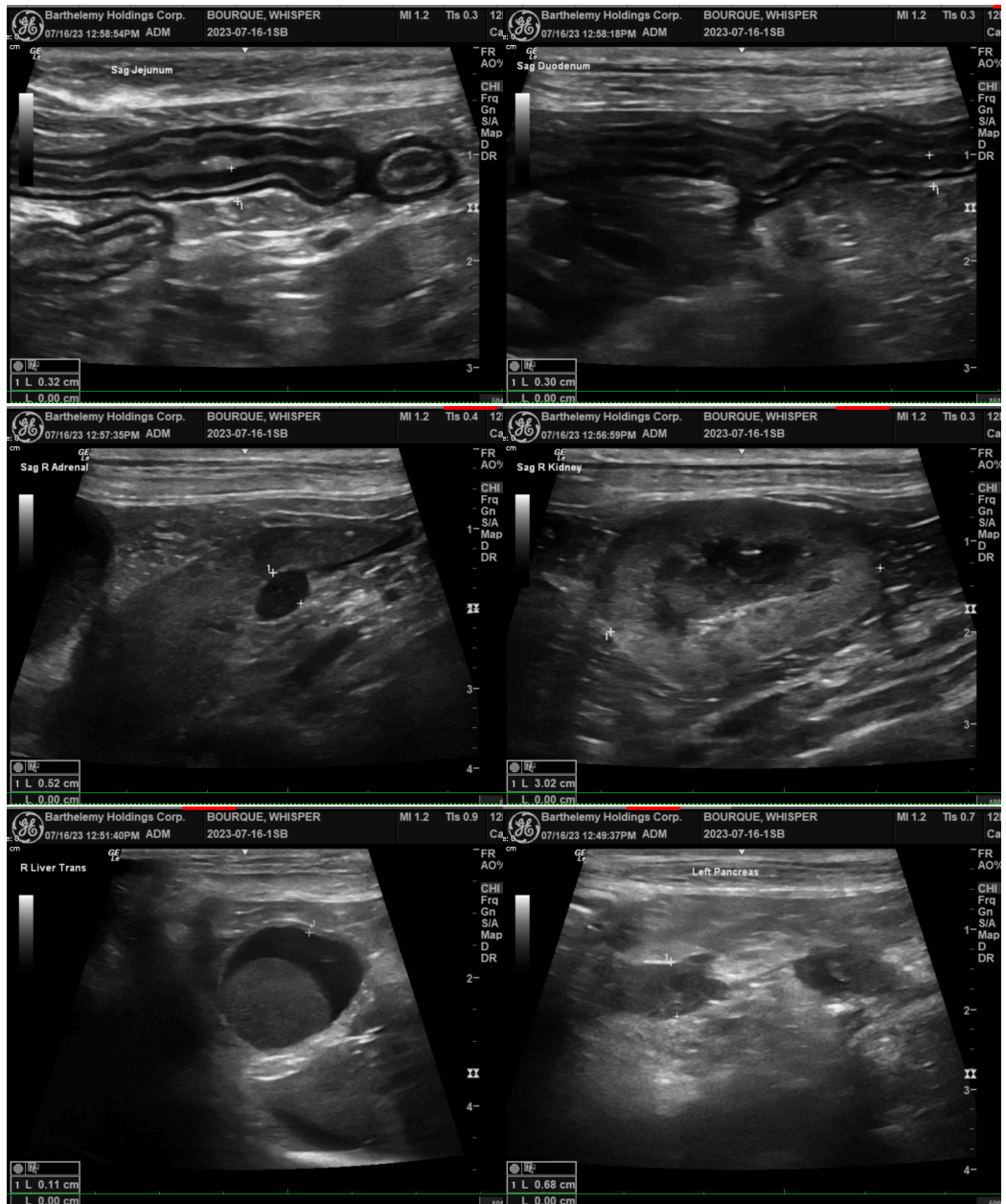
Dr. McKay

**INVOICE**

43874

**DATE**

7/16/23





**PATIENT**

Whisper Bourque

**SPECIES**

Feline

**BREED**

Siamese

**SEX**

Spayed Female

**AGE**

16 Years

**WEIGHT**

3.5 kg

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Sarah Barthelemy

**HOSPITAL NAME**

Fish Creek Pet Hospital

**REFERRING VET**

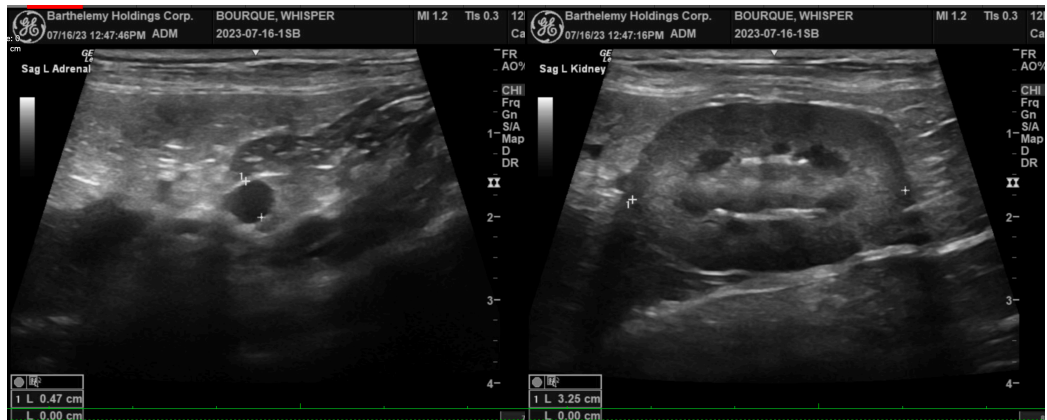
Dr. McKay

**INVOICE**

43874

**DATE**

7/16/23



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