



**PATIENT**

Ender Bristow

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

8 Years

**WEIGHT**

3.4 kg

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Hayley Biederbeck

**HOSPITAL NAME**

Lomsnes Vet Hospital

**REFERRING VET**

Dr. Hayley Biederbeck

**INVOICE**

35716

**DATE**

2/17/22

**PRESENTING CLINICAL SIGNS**

Chronic vomiting, started acutely in December. Would sometimes vomit daily, other times 1-2x/wk. Tried mult diets Was also seen in September at emergency clinic and dx with triaditis based on elevated liver values, vomiting and diarrhea. Jaundiced on PE. Has not lost weight from Sept-now Fractious but abdomen seems uncomfortable

Abnormal PE/Chem/CBC/UA Results: Jaundiced today. Bloodwork done in Sept at emerg clinic.  
Abnormal values: ALP 198 \* U/L 10.0 90.0 ALT 391 \* U/L 20.0 100.0 AMY 1501 \* U/L 300.0 1100.0 TBIL 59 \* umol/L 2.0 10.0 WBC 19.99 10<sup>9</sup>/l 5.5 19.5 NEU 16.93 10<sup>9</sup>/l 2.5 14.0

**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 (3.5 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 (3.8 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 was unable to be fully visualized in these images.

The left adrenal gland is normal in size (0.3 cm thick), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**Spleen**

Spleen is markedly enlarged in size with rounded margins but intact capsule. Parenchyma is homogenously coarse/mottled in echotexture and normal to hypoechoic in echogenicity. No focal nodules or masses are observed. Splenic vasculature appears normal.

**Liver**

Liver is subjectively enlarged. Margins are smooth but round. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is moderately distended with anechoic bile and gravity dependent, echogenic sediment. The wall is smooth without visible thickening. There is no evidence of cystic or common bile duct dilation. There is no evidence of inflammation immediately surrounding the gallbladder.

**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 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.



**PATIENT**

Ender Bristow

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.

**SPECIES**

Feline

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

***Pancreas***

**BREED**

DSH

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.

**SEX**

Spayed Female

***Free Abdomen***

There is no evidence of peritoneal effusion. Mild hypoechoic mesenteric lymphadenopathy is appreciated with a representative node measuring 0.47 cm thick. There is a small to moderate amount of anechoic free fluid throughout the abdomen.

**AGE**

8 Years

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

3.4 kg

- Coarse splenomegaly – can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, amyloidosis as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.
- Hyperechoic hepatomegaly – consistent with benign hepatic lipidosis. Infiltrative disease such as amyloidosis or neoplasia, such as mast cell tumor or less likely, lymphoma, is also possible.
- Cholecystic debris of unknown clinical significance – This can be seen with biliary stasis from fasting or illness. However, it is often 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 total bilirubin.
- Mild to moderate amount of anechoic free fluid and mesenteric lymphadenopathy – Possible reactive. However, given the concurrent changes, infiltrative changes such as lymphoma is suspected.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Hayley Biederbeck

**HOSPITAL NAME**

Lomsnes Vet Hospital

**REFERRING VET**

Dr. Hayley Biederbeck

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Overall, the combination of the marked cranial organomegaly combined with free fluid and lymphadenopathy makes infiltrative neoplasia (primarily lymphoma) the top differential in this patient. Recommendations include a fine needle aspirate of the liver and/or spleen as well as fluid sampling as reportedly previously recommended and declined. If fine needle aspirates are not an option, empirical therapy with steroids to address probable lymphoma could be considered combined with broad-spectrum antibiotics, Ursodiol and Denamarin, given the likelihood of concurrent Triaditis. In addition, aggressive GI support is recommended in the form of antiemetics and appetite stimulants to prevent sequelae of hepatic lipidosis with prolonged anorexia.

**INVOICE**

35716

**DATE**

2/17/22



**PATIENT**

Ender Bristow

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

8 Years

**WEIGHT**

3.4 kg

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Hayley Biederbeck

**HOSPITAL NAME**

Lomsnes Vet Hospital

**REFERRING VET**

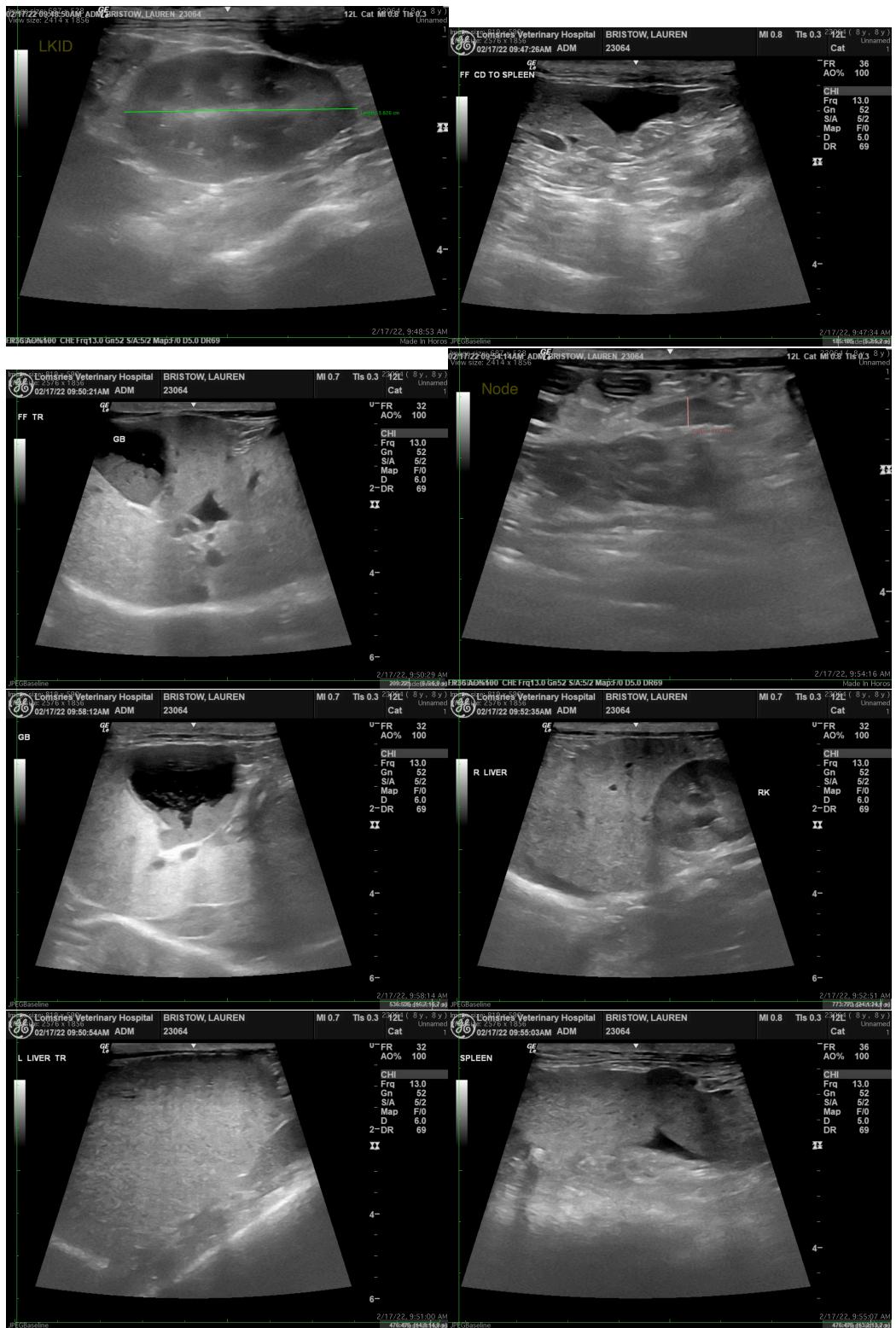
Dr. Hayley Biederbeck

**INVOICE**

35716

**DATE**

2/17/22





**PATIENT**

Ender Bristow

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

8 Years

**WEIGHT**

3.4 kg

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Hayley Biederbeck

**HOSPITAL NAME**

Lomsnes Vet Hospital

**REFERRING VET**

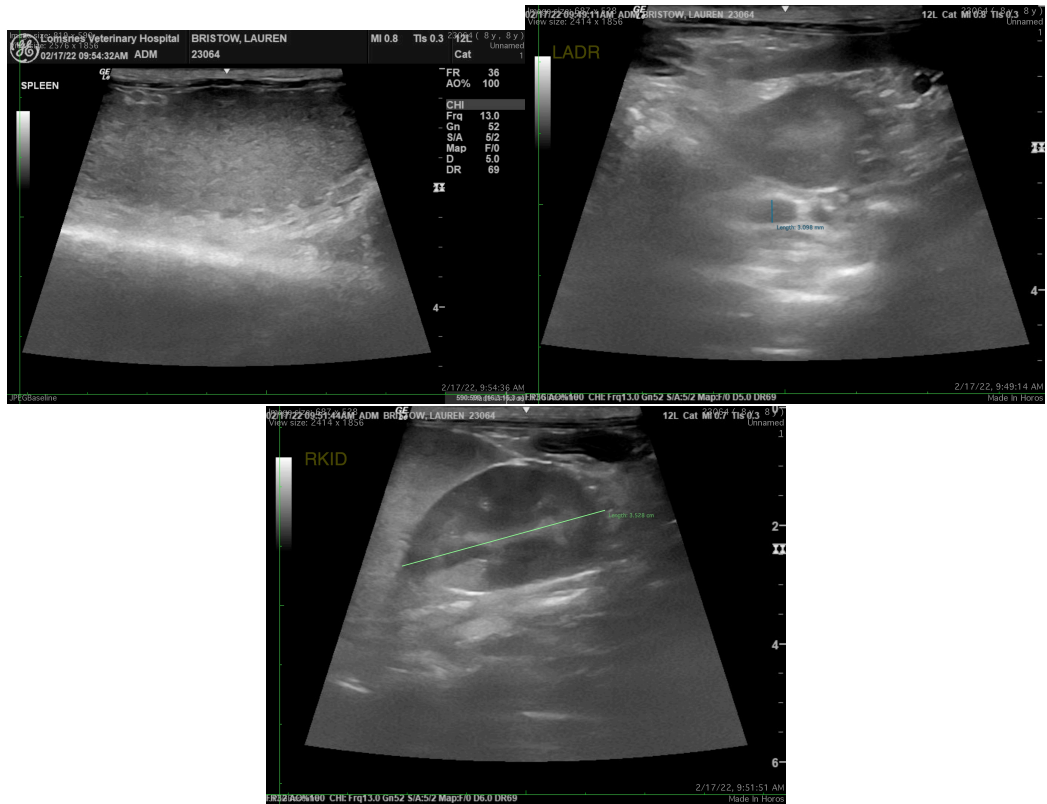
Dr. Hayley Biederbeck

**INVOICE**

35716

**DATE**

2/17/22



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**  
Beth.Johnson@sonopath.com