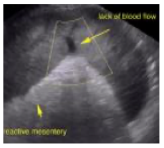
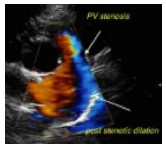
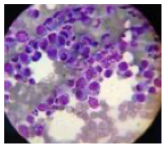
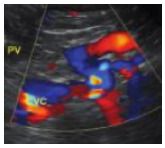
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Wrigley Leinhos

SPECIES

Canine

BREED

Boxer

SEX

Spayed Female

AGE

7 years

WEIGHT

41 lbs

INTERPRETED BY

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

IMAGING PERFORMED BY

Christina Sitton

HOSPITAL NAME

Sherwood Family PC

REFERRING VET

Christina Sitton

INVOICE

11906

DATE

10.27.22

PRESENTING CLINICAL SIGNS

History: initially present for vomiting 5/2022 hx not eating well, weight loss acutely present for pale MM, vomiting, bile from nose/congestion after large vomiting episode
Abnormal PE/Chem/CBC/UA Results: IBD -AUS in 8/2022 Abdominal ultrasound: Liver and biliary tree: The liver is normal in size and echogenicity, with smooth margins and homogenous parenchyma. The gallbladder is large-sized, thin-walled, and contains a moderate amount of hyperechoic, gravity-dependent sludge. There is diffuse common bile duct dilation (up to 1cm) to the level of the duodenal papilla, which is markedly thickened (see below). Gastrointestinal tract: The stomach contains a moderate amount of fluid and is subjectively hypomotile. Wall thickness is normal. The proximal duodenum surrounding the duodenal papilla is focally markedly thickened (up to 1cm) with blurring of normal wall layering, and mild intraluminal fluid dilation. The duodenal walls return to normal in thickness, however there is intermittent mild to severe wall thickening of the jejunum (0.5 to 0.77cm) with one segment also displaying blurring of normal wall layering. There is occasional mild to moderate fluid dilation of the small intestinal loops, with no evidence of intraluminal foreign material. Pancreas: No abnormalities noted to the visible pancreas. Lymph nodes: There is moderate enlargement of the gastric (0.85cm) and jejunal (0.95cm) lymph nodes with mild decrease in echogenicity of the parenchyma. Spleen: The spleen is normal in size (2cm) and displays normal echogenicity and smooth margins. Kidneys: Both kidneys are appropriate in size (LK= 6.6cm RK= 6.4cm). Corticomedullary distinction is normal bilaterally and margins are smooth. No pyelectasia or nephroliths are present. Adrenals: Both adrenal glands are normal in size (LA= 0.47cm RA= 0.55cm) and shape. Urinary bladder: The urinary bladder contains a moderate amount of anechoic urine. Wall thickness is mildly increased at the apex (0.4cm). No uroliths or masses are present in the bladder lumen. The proximal urethral is not well visualized due to its pelvic location. Other: There is a trace amount of peritoneal effusion present Ultrasound: Thickened duodenum and jejunum: Severe inflammatory disease, neoplastic infiltration (lymphoma etc), fungal enteropathy (unlikely given no hx of travel) Functional ileus associated with diffuse gastrointestinal inflammatory or neoplastic disease, peritonitis, electrolyte disturbance, pancreatitis. Dilated CBD: Early obstruction from duodenal wall thickening vs ascending biliary infection vs chronic cholangitis vs sequela of previous infection or obstruction. Trace peritoneal effusion: vasculitis, transudation from hypoalbuminemia, right sided heart faulure, hemorrhage, vs other Hypoalbuminemia: enteric protein loss, renal protein loss vs hepatic failure vs inflammation vs vasculitis -LN cytology: Reactive lymphoid hyperplasia with no evidence of high-grade lymphoma or neoplastic cells appreciated. -Jejunum cytology: Lymphocytic inflammation can't rule out small cell type lymphoma which would require histology to differentiate. -current tx: z/d diet, pred, cerenia, omprazole, metro, sucralfate, entyce started on 20 mg pred daily after AUS, and recently reduced to 15 mg once daily repeated AUS w/ concern for elevated liver and bilirubin started clavamox and denamarin yesterday

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone is normal.

The **left kidney** is normal size (6.99 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The **right kidney** is normal size (6.15 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. A 0.65 cm cortical cyst is observed in the lateral aspect. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

Adrenal Glands

The **left adrenal gland** is normal size (0.60 cm at cranial pole) (0.62 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The region of the **right adrenal gland** is evaluated. The gland is not definitively visualized.. However, no obvious pathology is observed.

Spleen
The **spleen** is normal in size (1.24 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver
The **liver** is subjectively prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic to hyperechoic relative to the spleen and homogenous in appearance. There is a questionable increase in portal markings. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The **gall bladder** is moderately distended. The wall is slightly thickened (up to 0.20 cm) with a smooth mucosal surface. A moderate amount of aggregated, echogenic, gravity dependent debris/sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal
The **gastric lumen** is moderately to severely fluid-distended and hypomotile. The wall in the region of the fundus is thin. In the region of the pyloric antrum, the wall is severely thickened (up to 0.69 cm) with a 6.40 cm mass effect in this region. The wall in this area is hypoechoic with a complete loss of the normal layering pattern. In at least two small intestinal segments, the wall is thickened (up to 2.56 cm) with loss of the normal layering pattern. In the remaining segments the wall is normal in thickness with a normal layering pattern and appropriate mural detail. A few small intestinal segments are mildly fluid-distended. The colonic wall is normal.

Pancreas
The **pancreas** is largely obscured by the cranial lymphadenopathy and gastric distention. In the visualized portions, no obvious abnormalities are seen.

Free Abdomen
Trace free fluid is observed. Numerous, severely enlarged (up to 7.77 cm) rounded, hypoechoic lymph **nodes** are observed throughout the abdomen. The mesentery surrounding the nodes is hyperechoic.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The severe abdominal lymphadenopathy is more concerning for infiltrative neoplasia. Given the patient's clinical history, lymphoma is the top differential. However, a severe inflammatory process (i.e., pyogranulomatous) cannot be completely excluded.

- Mass effect in the pyloric antral region with suspected outflow tract obstruction. Again, neoplasia (i.e., lymphoma) is suspected with a lower possibility of a severe inflammation. T

- he thickened small intestinal segments are also most concerning for infiltrative neoplasia.

- Diffuse peritonitis is present, likely secondary to lymph node and gastrointestinal pathology.

Secondary Findings

- The hepatic parenchymal changes may be secondary to chronic prednisone therapy, Inflammatory disease, emerging neoplasia, or some combination thereof.

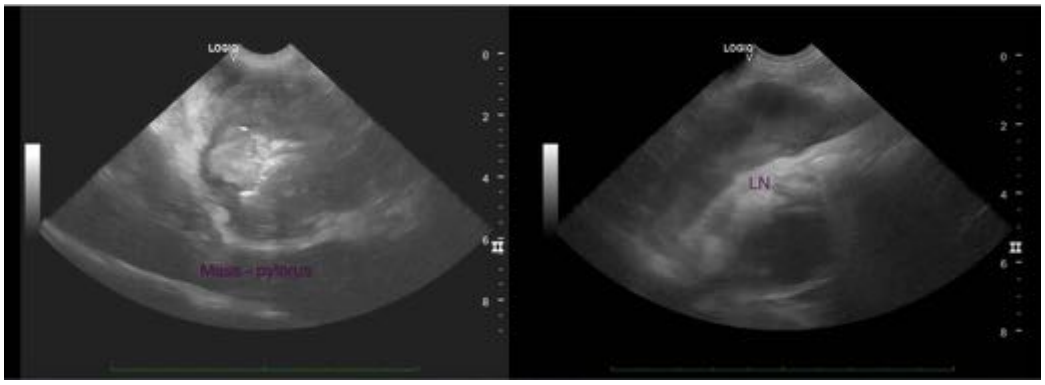
- The mild gall bladder wall thickening could be consistent with cholecystitis or may be a normal variant for this patient.

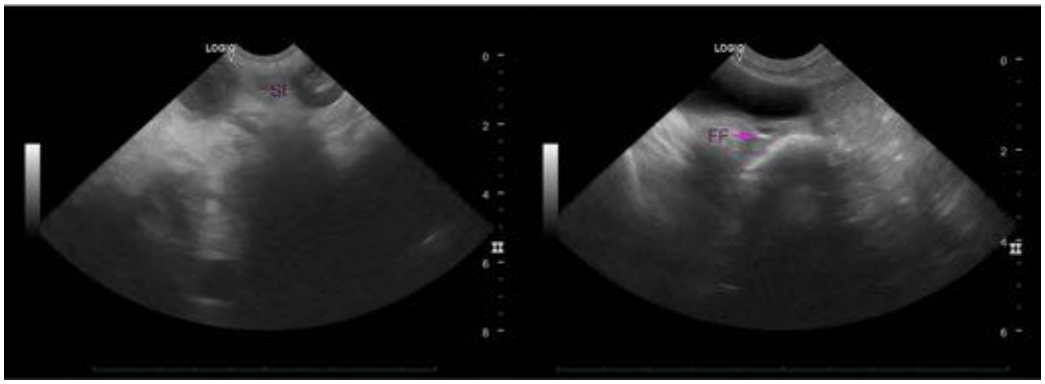
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

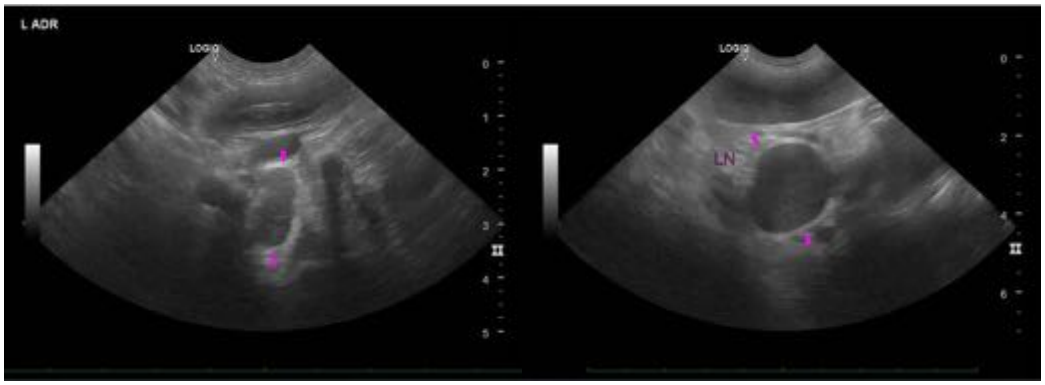
Fine-needle aspirates of the enlarged abdominal lymph nodes, pyloric antral mass effect +/- liver are recommended if clotting status is appropriate. Twenty-five gauge-needles should be used.

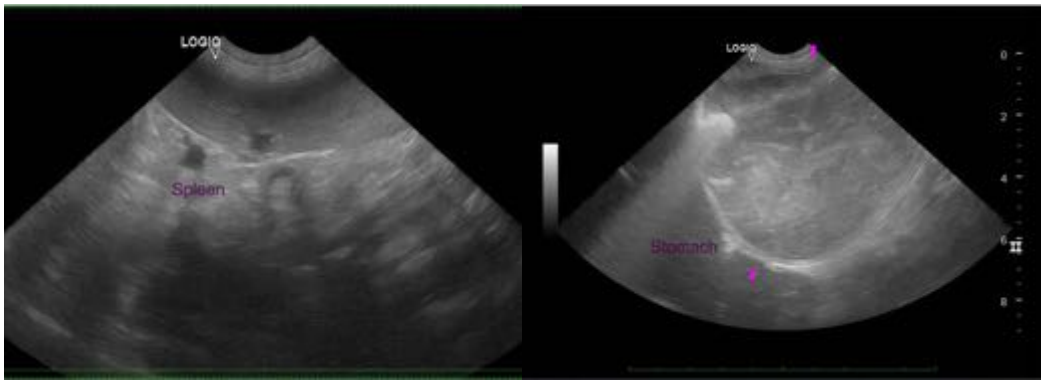
Thoracic radiographs are also recommended to assess for lymphadenopathy in the chest.

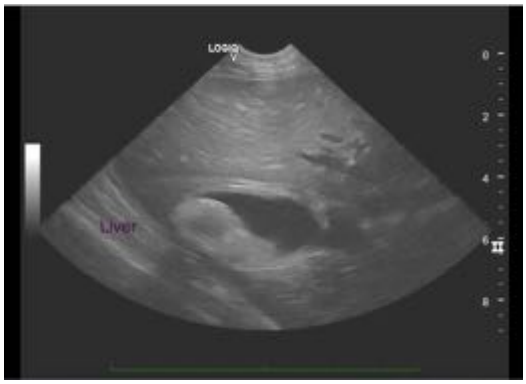
Depending on the results, consultation with a board-certified oncologist may be warranted.











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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com