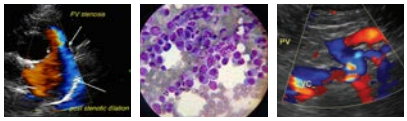
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

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

**DATE**

3/21/23

**PATIENT**

Oreo Foble

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

3/3/08

**WEIGHT**

11 Pounds

**INTERPRETED BY**

Beth Johnson, DVM DACVIM

**HOSPITAL NAME**

Perry Hall AH

**REFERRING VET**

Dr. Miller

**INVOICE**

46060

## PRESENTING CLINICAL SIGNS

Patient presents for evaluation of weight loss, chronic with a decreased appetite at home. On presentation, significant dental disease, grade 1 cardiac murmur noted, (owner does decline echocardiogram at this time.) BP is WNL.

Current Medications: On Gabapentin 100 mg for the scan - patient was sent home with Entyce over weekend.
Lab Results: CBC: RBC: 6.64 (7.12 - 11.46), HCT: 27.4 (28.2 - 52.7), Hemoglobin: 9.9 (10.3 - 16.2), Monocytes: 1.369 (0.04 - 0.53), Platelets: Adequate. Chemistry: TP: 5.3 (6.3 - 8.8), Albumin: 2.3 (2.6 - 3.9), AST: 101 (16 - 67), ALP: 61 (12 - 59), T4: < 0.4 (0.8 - 4.7)
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, RDMS.

## 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 (3.75 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 (3.55 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 (0.50 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The area of the left adrenal gland is examined without evident adrenal gland pathology.

### *Spleen*

Spleen is subjectively large in size (1.4 cm thick) with subtly scalloped or undulating capsular contour. Parenchyma is normal in echogenicity with a mildly coarse/heterogenous echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

### *Liver*

Liver is subjectively enlarged (swollen contour). Mild parenchymal remodeling with diffusely mildly coarse architecture and increased portal markings is present. No focal nodules or masses 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 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.

Diffusely, the visible small intestine demonstrates areas of thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). However focally, medial to the spleen, there is a 3.8 cm long bowel mass characterized by 0.75 cm thick heterogeneous hypoechoic wall with loss of layering. 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*

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 visible abdominal fluid. However, pleural effusion is noted at the level of the diaphragm.

A 0.90 cm in diameter hypo- to anechoic prominent cranial abdominal/hepatic lymph node is noted as well as a 4.0 cm x 5.0 cm heterogeneous hypoechoic mesenteric root mass/lymph node, in addition to other mesenteric lymph nodes that are enlarged with swollen irregular capsular contour and loss of normal length to width ratio (rounded in shape). Nodes are hypoechoic with loss of normal parenchymal detail.

## ULTRASONOGRAPHIC FINDINGS

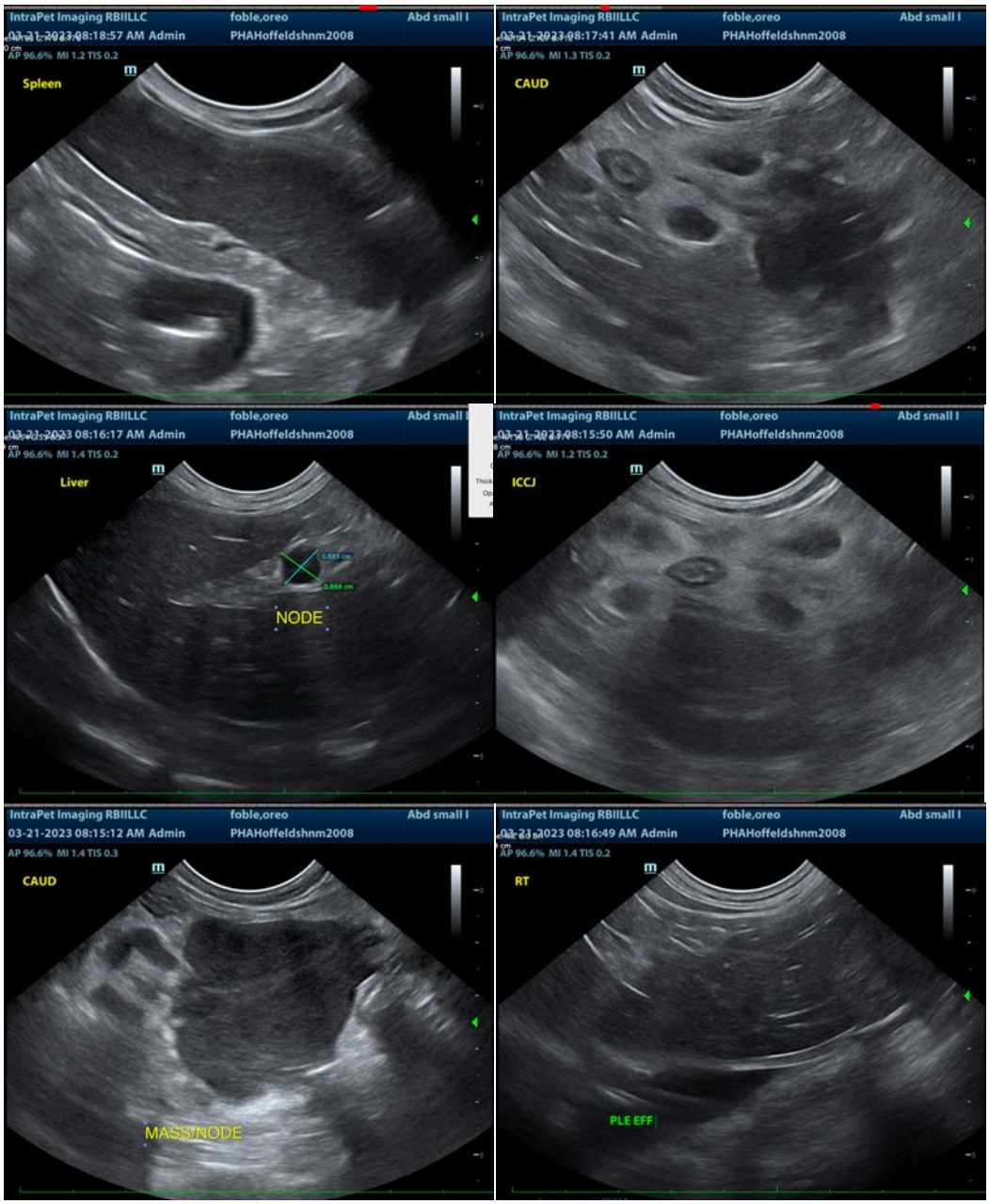
- **Focal bowel mass medial to the spleen** – most concerning for infiltrative neoplasia with lymphoma being the top differential, given the diffuse changes throughout the remaining bowel as well as the enlarged lymph nodes.
- **Aggressive mesenteric lymph nodes in addition to hepatic lymphadenpathy –** most consistent with infiltrative round cell or metastatic neoplasia. A benign aggressive inflammatory response cannot be ruled out without tissue sampling +/- culture. Lymphoma is the top differential.
- **Scalloped spleen –** can be associated with benign or malignant infiltrative disease. Common causes include a reactive spleen secondary to immune stimulus or early infiltrative round cell neoplasia such as lymphoma or mast cell tumor.
- **Hypoechoic hepatomegaly** – This appearance is consistent with an acute hepatopathy or acute cholangiohepatitis. Infiltrative neoplasia (round cell neoplasia) should also be considered.
- Pleural effusion is noted.

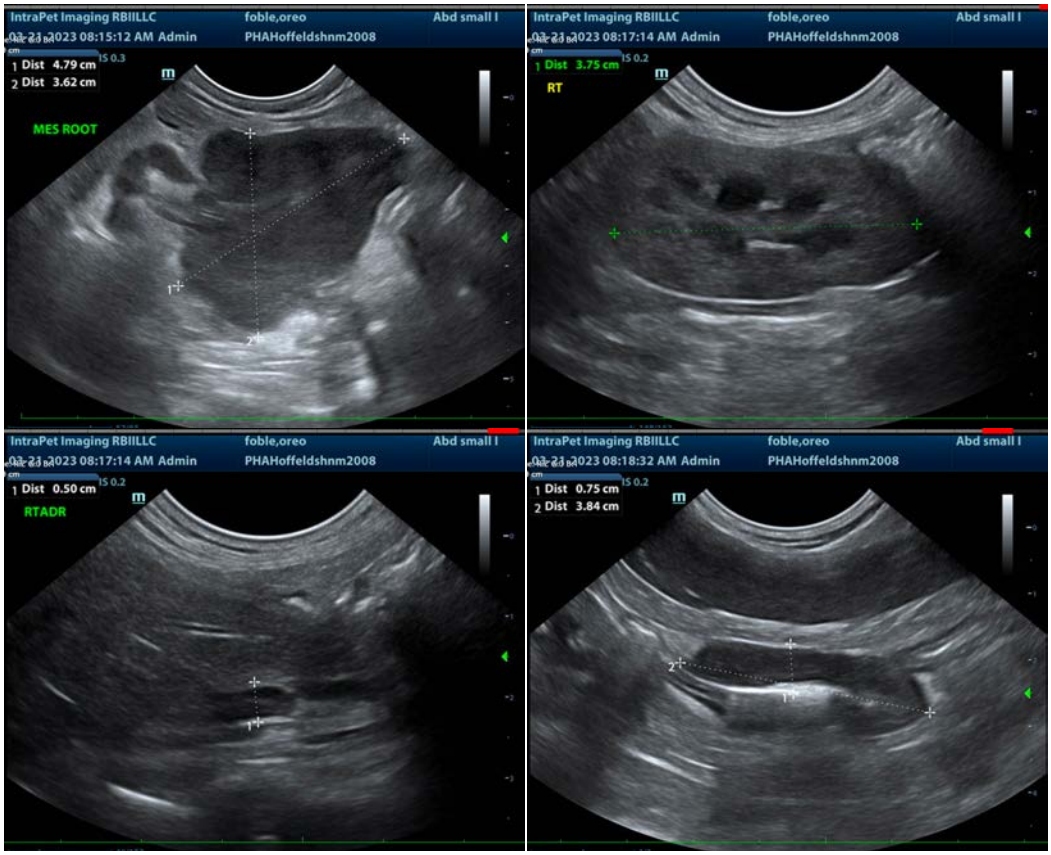
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

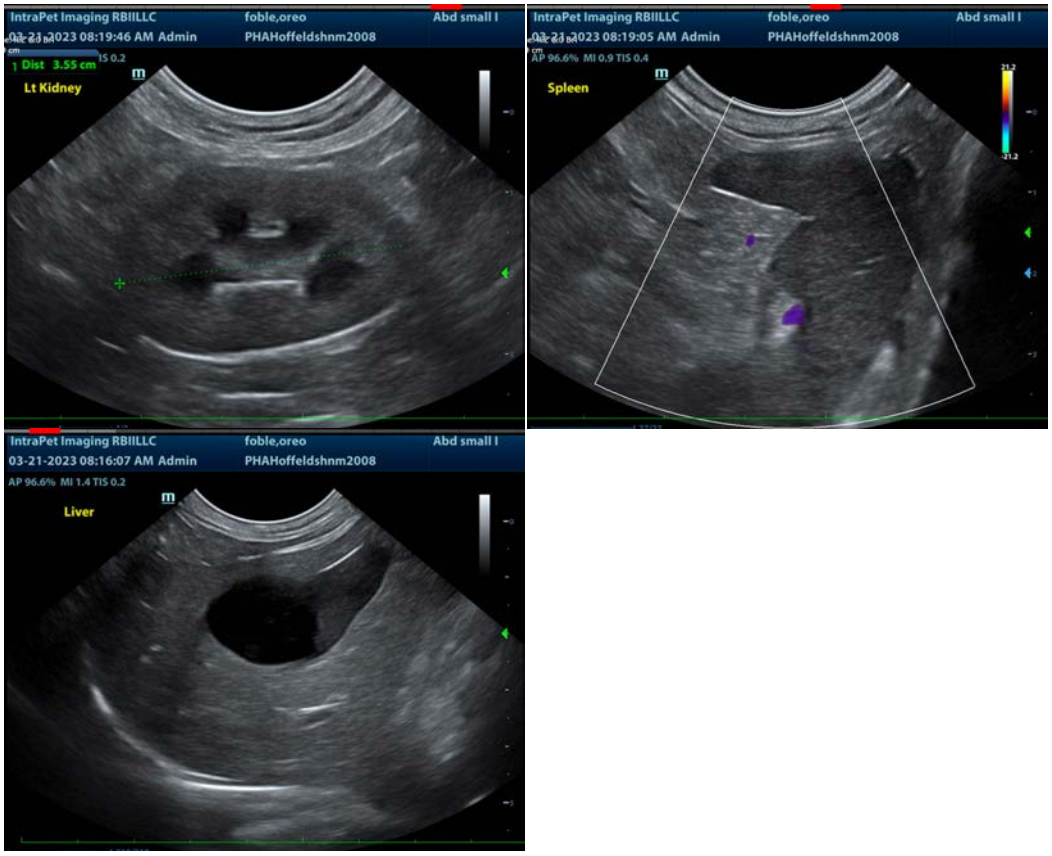
Infiltrative round cell neoplasia with lymphoma being the top differential is considered the most likely cause of this patient's diffuse abdominal changes. The pleural effusion noted could be paraneoplastic effusion. However, other causes including underlying cardiac disease cannot be ruled out. Recommendations include a fine needle aspirate of the enlarged mesenteric lymph nodes/mass +/- the spleen and liver if patient's coagulation status is appropriate.

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

An echocardiogram may be warranted pending cytology results +/- pleural effusion, fluid analysis results, thoracic radiograph results, etc.




IntraPet Imaging RBIILLC
foble,oreo
Abd small I
Oct 21 2023 08:15:12 AM Admin
PHAHoffeldshnm2008
1 Dist 4.79 cm
2 Dist 3.62 cm
MES ROOT
IntraPet Imaging RBIILLC
foble,oreo
Abd small I
Oct 21 2023 08:17:14 AM Admin
PHAHoffeldshnm2008
1 Dist 3.75 cm
RT
IntraPet Imaging RBIILLC
foble,oreo
Abd small I
Oct 21 2023 08:17:14 AM Admin
PHAHoffeldshnm2008
1 Dist 0.50 cm
RTADR
IntraPet Imaging RBIILLC
foble,oreo
Abd small I
Oct 21 2023 08:18:32 AM Admin
PHAHoffeldshnm2008
1 Dist 0.75 cm
2 Dist 3.84 cm




**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