

IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telectology

EDUCATIONAL TELECONSULTATION SERVICES™

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

DATE PRESENTING CLINICAL SIGNS

2/1/22 History: Inappetence and Anemia, quick ultrasound appears to have mass in spleen. Pet has not been eating well for about 3 weeks. She has been anemic for ~2 weeks. She is now weak and won't even eat chicken. She had been taking Novox but has stopped.

PATIENT

Annabelle Driegier Current Medications: Dasuquin Advanced QD. She is currently on Yunnan Bao 2 C BID.
Lab Results: mildly elevated GGT and Amylase, elevated WBCs, decreased HCT&HBG. Attached separately.

SPECIES

Canine Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

BREED

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Golden Retriever

Urinary System

SEX

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.

Spayed Female

AGE

The right kidney is normal in size (5.74 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.

4/30/11

WEIGHT

The left kidney is normal in size (6.3 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.

82.6 Pounds

INTERPRETED BY

Adrenal Glands

Beth Johnson, DVM
DACVIM

The left adrenal gland is enlarged in size (4.24 cm long x 2.25 cm cranial pole and 1.43 cm caudal pole). Normal shape and contour are maintained. Hyperechoic nodules are noted in both poles. The nodules do not disrupt normal shape and/or architecture. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

IMAGING PERFORMED BY

The right adrenal gland is enlarged in size (3.28 cm long x 0.70 cm cranial pole and 0.75 cm caudal pole). Normal shape and contour are maintained. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Rachel Brilhart RDMS

HOSPITAL NAME

Spleen

Festival Vet Clinic

The spleen is subjectively normal in size with an irregular, scalloped capsular contour. Parenchyma is diffusely coarse and heterogeneous with multifocal nodules ranging from anechoic to hyperechoic throughout the parenchyma. Splenic vasculature appears normal.

REFERRING VET

Dr. Davies

Liver

INVOICE

Liver is subjectively enlarged with rounded margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. In the right liver, a 9-10 cm heterogeneous/cavitated mass is seen. In the left liver, a 9.0 cm similar appearing, heterogeneous, cavitated mass is present. Visible vasculature appears normal.

35348

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.

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.

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 a irregularly shaped hypo- to anechoic 2.5 cm x 3.0 cm sublumbar lymph node appreciated. No free fluid is present in the abdomen. No visible pericardial effusion or cardiac nodules/masses in these images.

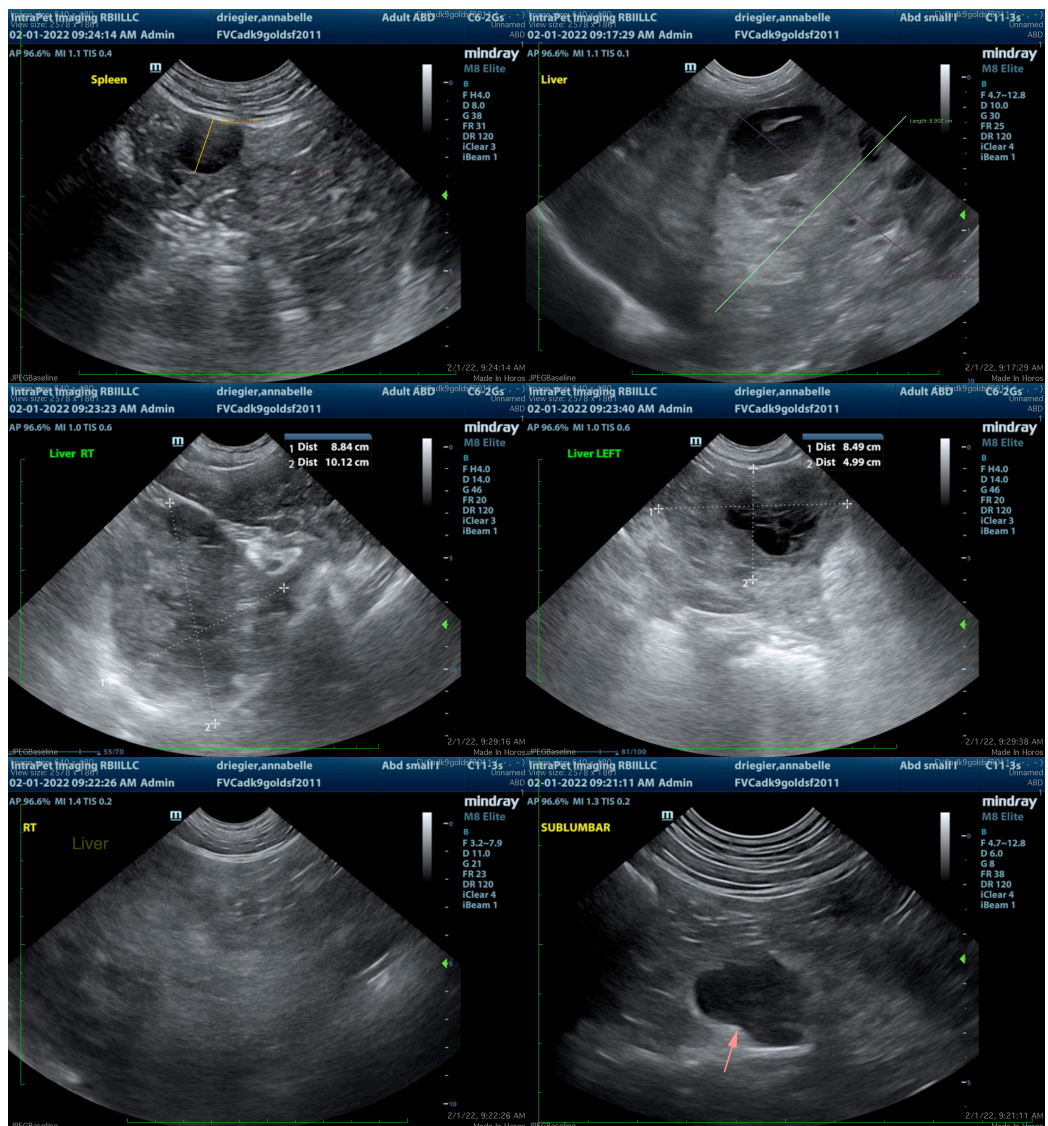
ULTRASONOGRAPHIC FINDINGS

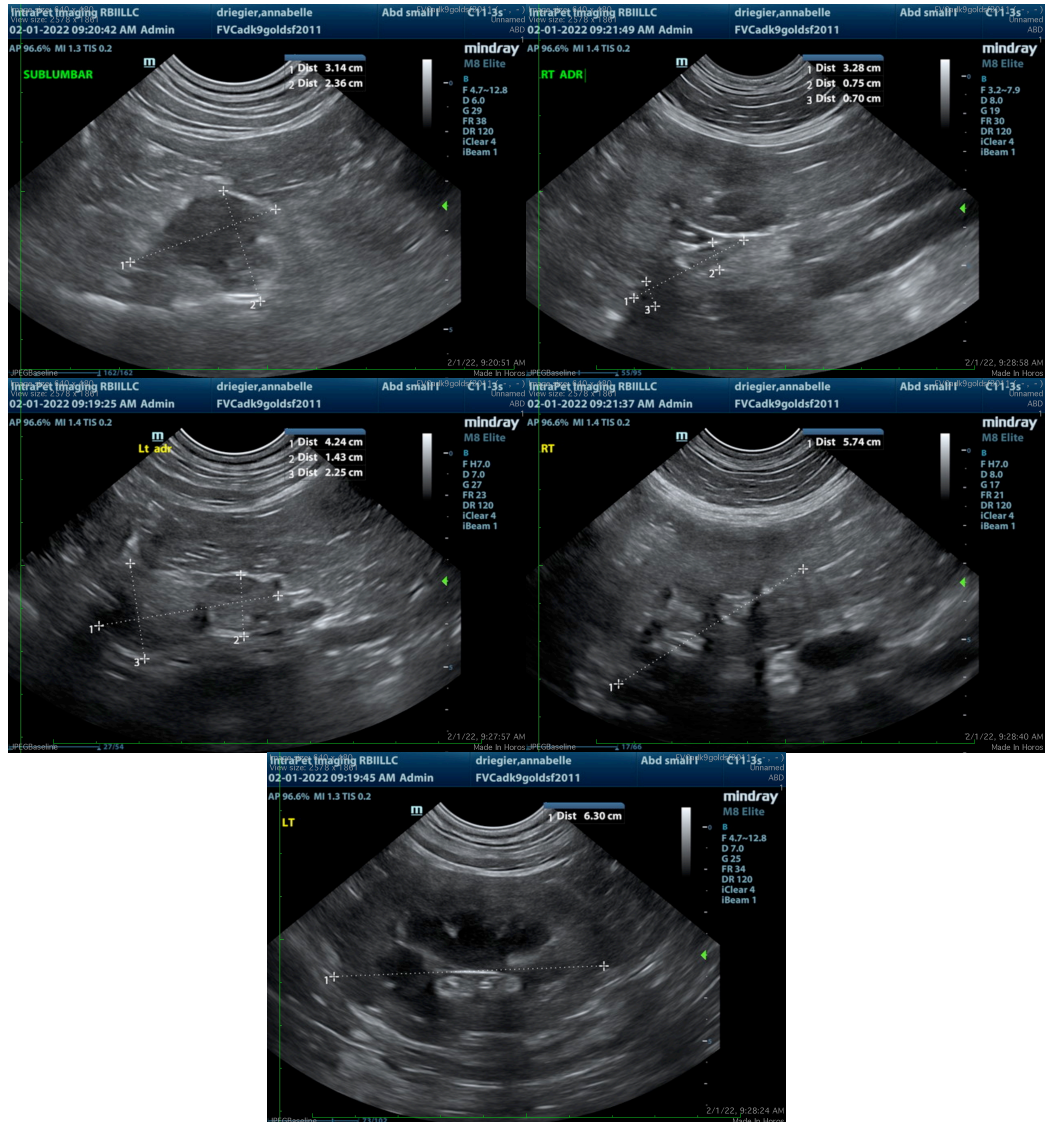
- Diffusely heterogeneous liver with multifocal discrete, cavitated masses. The largest masses are in the caudal liver, one on the left and one on the right. However, no normal hepatic parenchyma is present. The top differential for these changes is infiltrative neoplasia such as sarcoma versus possibly round cell neoplasia. Benign disease is considered possible, but much less likely given the change in architecture.
- Heterogeneous, nodular, irregularly shaped spleen – Also most concerning for infiltrative neoplasia. Benign extramedullary hematopoiesis, etc. is possible, but also considered much less likely.
- Sublumbar lymphadenopathy – Most consistent with metastatic neoplasia versus a reactive node.
- Bilateral adrenomegaly – consistent with adrenal hyperplasia secondary to pituitary depending hyperadrenocorticism vs normal variant.
- Hyperechoic nodule in both poles of the left adrenal gland - Differentials include primary adrenal cortical adenoma or adenocarcinoma, pheochromocytoma, myelolipoma, adrenal hyperplasia secondary to pituitary disease or metastatic disease. Given the fact that the adrenomegaly is bilateral in this patient specifically, this finding could be an atypical appearance of pituitary dependent adrenal hyperplasia, or it is possible to be pituitary dependent hyperplasia with concurrent left adrenal adenomas, adenocarcinomas, or pheochromocytomas, etc. Given the disease elsewhere in the abdomen, metastatic lesions to the left adrenal gland are also possible. Ultrasound alone cannot differentiate between functional and non-functional nodules and/or between benign and malignant disease. Lesions greater than 2 cm are generally primary adrenal neoplasia (benign or malignant) vs hyperplasia with lesions greater than 4 cm being more predictive of malignant neoplasia. Small nodules without other evidence of abdominal disease (to suggest metastatic

disease) and/or clinical signs (to suggest hyperadrenocorticism) are most often incidental and should be monitored.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recommendations include 3-view thoracic radiographs to further evaluate possible metastatic disease if not already performed. A fine needle aspirate of the liver, spleen and enlarged lymph node could be considered if the patient's coagulation status is appropriate to rule out possible round cell neoplasia that could potentially be managed medically. However, given the cavitated degree of the multifocal masses combined with the patient's anemia, etc., surgical excision of the cavitated masses may ultimately be necessary to prevent an impending hemoabdomen. Having said this, surgery is not considered likely to be able to remove all of the gross disease.





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