

**DATE**

10/31/22

PRESENTING CLINICAL SIGNS

History: 10-28-22 for nonspecific pain. Eating and drinking normally but had an episode of crying, not wanting to move, breathing difficulty. Bloodwork revealed elevated ALT,GGT, ALP otherwise wnl. Rads show possible mass in mid abdomen in the area of the pylorus. Liver is enlarged. Chest rads revealed slightly enlarged heart. There is a history of grain free diet and mast cell tumor removal 1 year ago. (Oct 2021) Had an abdominal ultrasound at that time with oncology- Unremarkable.

PATIENT

Jasmine Gordon

SPECIES

Canine

BREED

Boston Terrier

SEX

Spayed Female

AGE

8/17/11

WEIGHT

25.5 Pounds

INTERPRETED BYBeth Johnson, DVM
DACVIM**HOSPITAL NAME**

Bayside AMC

REFERRING VET

Dr. Sims

INVOICE

17911

Current Medications: Gabapentin, Vetprofen, Denamarin, Vetoryl.

Lab Results: See attached.

Radiographs: enlarged liver, possible mid abdominal mass. Heart mildly enlarged.

Date of Previous IntraPet Ultrasound: Oncology- See attached.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Stephanie Warga RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

Urinary bladder is adequately 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.

Left kidney is normal is size (4.97 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.

Right kidney is normal is size (4.57 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

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The left adrenal gland measures 2.5 cm long x 0.99 cm at the cranial pole and 1.04 cm at the caudal pole. The right adrenal gland measures 2.6 cm long x 1.0 cm at the cranial pole and 0.89 cm at the caudal pole.

Spleen

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). Multifocal well-demarcated hyperechoic homogenous nodules are noted. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion. Specifically within the parenchyma, multiple nonvascular anechoic cysts and cyst conglomerations with the most predominant

being a 3.5 cm x 4.5 cm cystic lesion/mass in the right caudal liver, 2.0 cm x 3.0 cm similar appearing lesion in the left caudal liver, as well as a slightly smaller similar appearing lesion in the left cranial liver, differentials for which are primarily benign and include hepatic cysts versus hematoma, etc. Infiltrative neoplasia is possible but considered much less likely.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The stomach is moderately distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. However, given the reported history of fasting, delayed gastric emptying could be considered. Soft (cloth) fluid absorbing foreign material is considered less likely but cannot be definitively ruled out. If clinical signs are consistent (vomiting, etc.), recommendations include supportive medical care, 24 hours fasting and re-image.

The visible small intestines are normal in wall thickness and layering. 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 and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Bilateral adrenomegaly consistent with the reported history of hyperadrenocorticism and veterinary administration
- Heterogenous Liver with multiple nonvascular anechoic cysts and cyst conglomerations – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia. Regarding the cyst, differentials are primarily benign and include hepatic cysts versus hematoma, etc. Infiltrative neoplasia is possible but considered much less likely.

Secondary Findings

- Hyperechoic splenic nodules – most consistent with benign myelolipomas. Other differentials such as fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or metastatic disease cannot be ruled out, but are considered less likely.

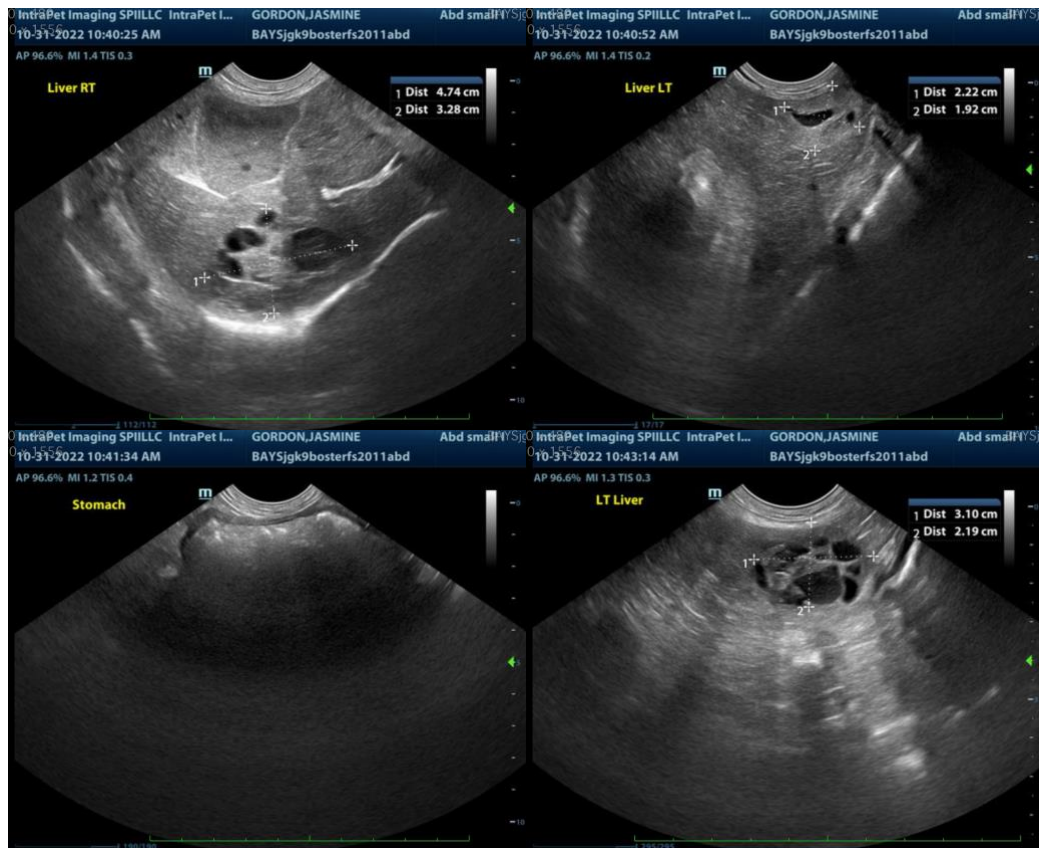
- Gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

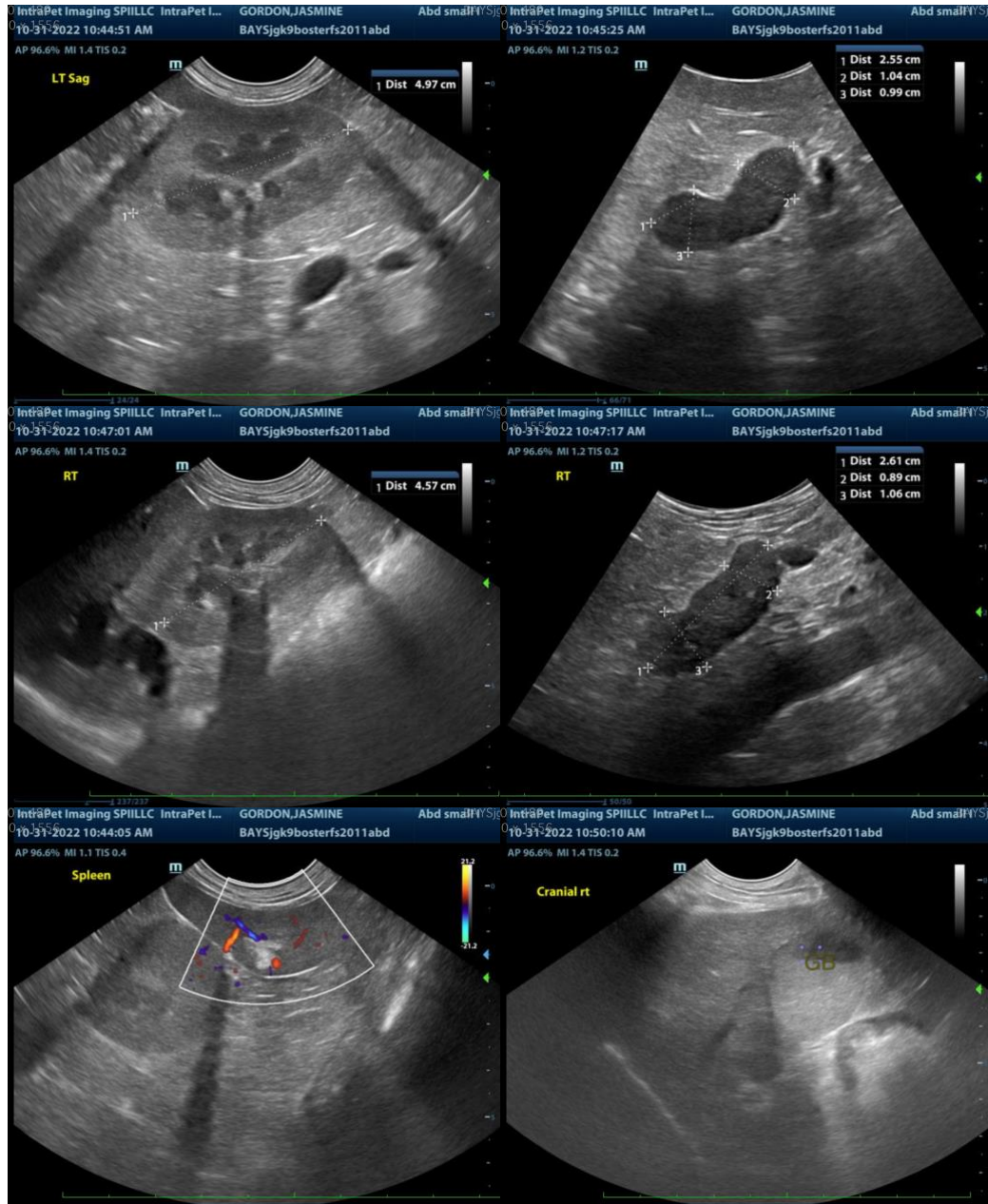
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The pathology described above is relatively nonspecific or consistent with previous diagnosis including hyperadrenocorticism. There is no visible evidence of a pyloric mass in these images at this time and no explanation for the patients reported pain episode.

Given the increased liver enzymes, which are likely secondary to the hyperadrenocorticism, but a fine needle aspirate of the cystic lesions could be considered if patients coagulation status is appropriate. Premedication with diphenhydramine is recommended, just to be safe given the history of mast cell tumor.

Additionally, further evaluation for possible orthopedic and/or neurologic cervical or spinal pain sources is recommended.





The information and recommendations provided are based on the images presented by the referring veterinarian. 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