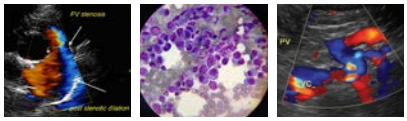
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

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DATE

8/17/22

PATIENT

Sam Bathon

SPECIES

Canine

BREED

Shih Tzu

SEX

Neutered Male

AGE

5/1/08

WEIGHT

14.52 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Main Street VH

REFERRING VET

Dr. Jantz

INVOICE

40515

PRESENTING CLINICAL SIGNS

Sam had a dental last Weds, hasn't eaten. Owner took him to Urgent Vet Care- they diagnosed him with pancreatitis and pneumonia.

Current Medications: None listed.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Declined.
Stat Report: STAT requested.

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.

Prostate is normal in size, echotexture and echogenicity for a neutered male.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The kidneys measured 3.74 cm each.

Adrenal Glands

The right adrenal gland is normal in size (1.88 cm long x 0.67 cm at the cranial pole and 0.59 cm at the caudal pole.), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (1.66 cm long x 0.58 cm at the cranial pole and 0.69 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

The 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). No focal nodules or masses are observed. 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. A 1.5 cm x 3.0 cm iso- to hypoechoic nodule is noted in the deep liver. Visible vasculature and biliary tree appear normal without distension or congestion.

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 lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. 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 no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

Other

Occasional ringdowns are noted at the level of the diaphragm.

In the thorax, there is no evidence of pleural effusion or tissue consolidation or nodules in the pulmonary parenchyma, and no evidence of pericardial effusion or heart base or cardiac parenchymal lesions or nodules.

PRIMARY FINDINGS

- **Heterogenous Liver –** 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.

- **Liver nodule –** Differentials for a discrete liver nodule include primarily benign changes such as nodular hyperplasia, fibrosis of an old hematoma, granuloma, etc.; however, while considered less likely, primary hepatic neoplasia, infiltrative round cell neoplasia and metastatic disease can mimic benign lesions and cannot be definitively ruled out.

- **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.

- **Ringdowns at the level of the diaphragm –** Suggestive of pulmonary pathology. No evident pathology was noted on ultrasonographic examination of the thorax. However, pulmonary pathology cannot be definitively ruled out with ultrasound alone.

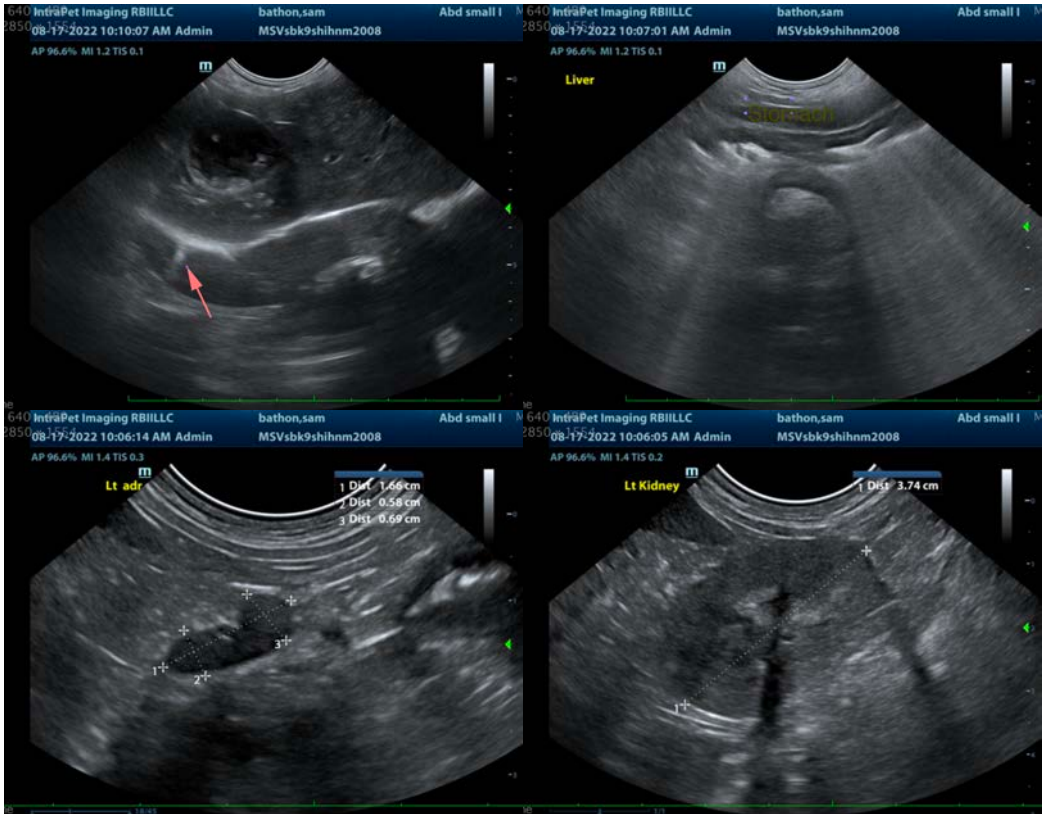
SECONDARY FINDINGS

- Age related kidney changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the suspicion for some pulmonary pathology, despite no evidence of it ultrasonographically, 3-view thoracic radiographs are recommended if not already evaluated. Both occult mild pancreatitis as well as gastrointestinal disease can be present with a relatively normal ultrasound as well. Therefore, if pancreatitis is suspected, recommendations include a quantitative PLI for further evaluation. This patient's liver and gallbladder changes should be interpreted in combination with clinical signs and/or laboratory changes that support cholangitis or an inflammatory hepatopathy, cholangiohepatitis, etc. such as cranial abdominal pain, nausea, decreased appetite, and/or increased liver enzymes, including possibly increased total bilirubin.

Without supporting evidence, these findings are likely incidental, and the liver nodule trends towards benign in appearance. Given that this patient's decreased appetite reportedly began following a dental procedure, evaluation for sources of pain, infection, etc. is recommended while supportively/symptomatically treating and managing this patient's clinical signs.




IntraPet Imaging RBIILLC
bathon,sam
Abd small I
08-17-2022 10:04:56 AM Admin
MSVsbk9shihnm2008
AP 96.6% MI 1.4 TIS 0.2
ADR RT
1 Dist 1.88 cm
2 Dist 0.59 cm
3 Dist 0.67 cm


IntraPet Imaging RBIILLC
bathon,sam
Abd small I
08-17-2022 10:08:41 AM Admin
MSVsbk9shihnm2008
AP 96.6% MI 1.3 TIS 0.2
LEFT CHEST


IntraPet Imaging RBIILLC
bathon,sam
Abd small I
08-17-2022 10:08:18 AM Admin
MSVsbk9shihnm2008
AP 96.6% MI 1.3 TIS 0.2
RT CHEST


IntraPet Imaging RBIILLC
bathon,sam
Abd small I
08-17-2022 10:07:04 AM Admin
MSVsbk9shihnm2008
AP 96.6% MI 1.2 TIS 0.1
Liver


IntraPet Imaging RBIILLC
bathon,sam
Abd small I
08-17-2022 10:03:24 AM Admin
MSVsbk9shihnm2008
AP 96.6% MI 1.3 TIS 0.1
Liver
1 Dist 2.89 cm
2 Dist 1.48 cm


IntraPet Imaging RBIILLC
bathon,sam
Abd small I
08-17-2022 10:03:16 AM Admin
MSVsbk9shihnm2008
AP 96.6% MI 1.3 TIS 0.1
Liver


IntraPet Imaging RBIILLC
bathon,sam
Abd small I
08-17-2022 10:04:34 AM Admin
MSVsbk9shihnm2008
AP 96.6% MI 1.4 TIS 0.2
RT
1 Dist 3.74 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
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