IMAGING PERFORMED BY

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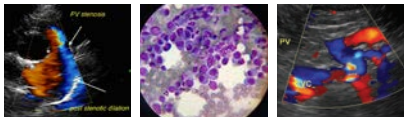

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

7/13/22

PATIENT

Puffy Bergstrom

SPECIES

Canine

BREED

Schnauzer

SEX

Neutered Male

AGE

10/10/13

WEIGHT

18.2 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Stephanie Pearce RDCS, RVT

HOSPITAL NAME

Banfield Timonium

REFERRING VET

Dr. Adu

INVOICE

39475

PRESENTING CLINICAL SIGNS

Presented July 9 for vomiting/diarrhea. BW revealed elevated ALK phos -1112 (prev 528 in Dec 2021) P was treated supportively with metro, cerenia, and fluids. Doing well now but O would like to further investigate elevated liver value. Currently on Keppra and Zonisimide for seizures

Current Medications: Keppra and Zonisimide - unsure of dosing as it is prescribed by another vet and O wasnt sure of dose during appointment
Lab Results: Alk Phos- 1112, Lymphopenia (0.63 10^9/l or 4.9%)
CBC/remainder Chem – WNL.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not 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 (neutered) is normal in size, echotexture and echogenicity for a neutered male.

The right kidney is normal in size (4.55 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.

The left kidney is normal in size (4.88 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 (2.04 cm long x 0.54 cm at the cranial pole and 0.54 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 (1.6 cm long x 0.39 cm at the cranial pole and 0.37 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

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 present. Splenic vasculature appears normal.

Liver

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. A small 0.5 cm anechoic cyst is noted. Visible vasculature and biliary tree appear normal without distension or congestion.

GB contains a moderate amount of non-dependent, mildly aggregated/inspissated sludge. Hypo to anechoic cystic areas are noted between the gallbladder sludge and luminal wall. The wall is otherwise smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion. In these images, the gallbladder measures 3.0 cm x 6.0 cm.

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 mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is 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. Hyperechoic mucosal fogging or speckling is noted. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is 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 very scant amount of anechoic free fluid between bowel loops.

Mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

PRIMARY FINDINGS

- Early mucocele – 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. The non-dependent nature of this sludge combined with the cystic areas are suggestive, however, of possible emerging cystic mucosal hyperplasia or early gallbladder mucocele.

- Mucosal speckling – Mucosal speckling is often present with inflammatory bowel disease (IBD). It is not specific for type or severity of disease. Mild speckling change can occur as a normal patient variant in the post-prandial state. Given the ingesta present, this is most consistent with post-prandial abdomen.

- Scant anechoic free fluid and reactive mesenteric lymphadenopathy – may be secondary to the reported resolving mild gastroenteritis or pancreatitis that resulted in the resolving GI signs.

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 less likely.

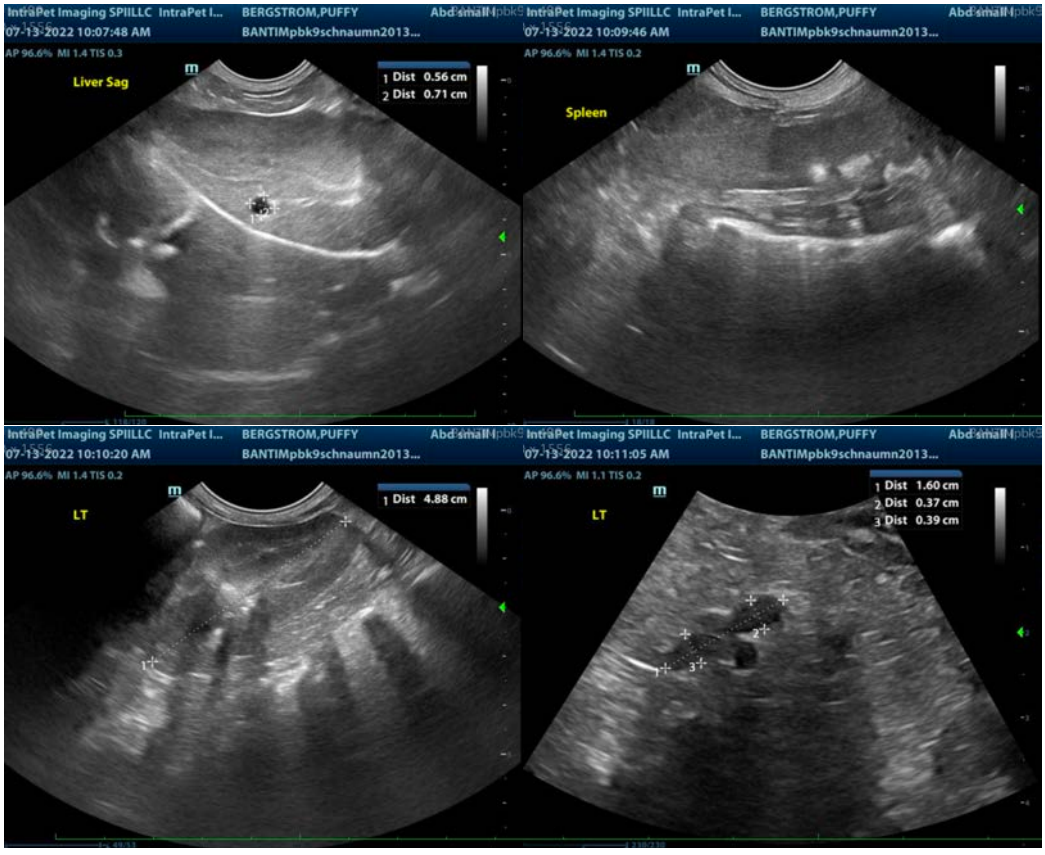
- Incidental benign liver cyst

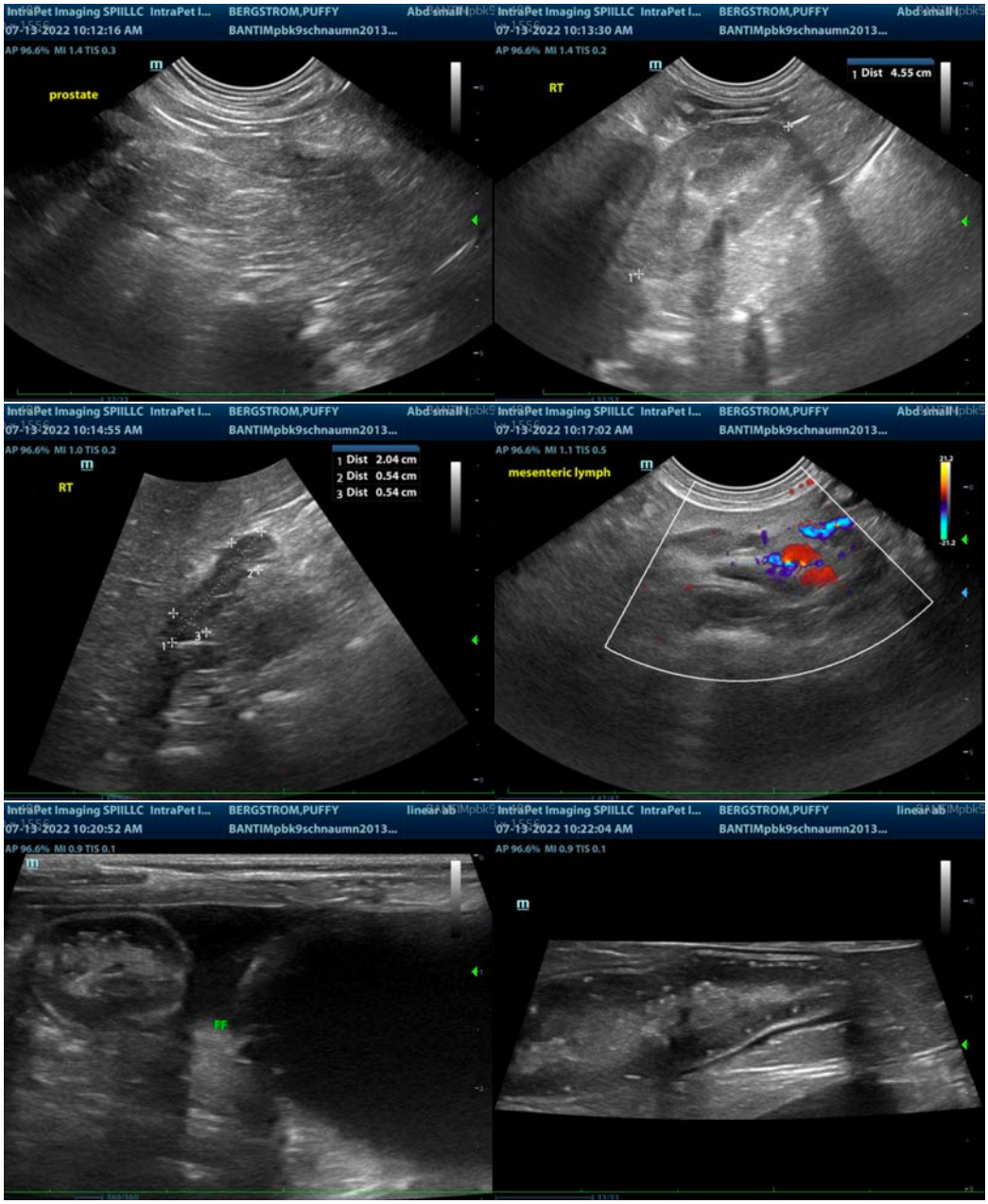
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- The increased ALP in this patient is likely secondary to the merging mucocele. Given resolution of clinical signs, if there is no abdominal pain, recurrence of clinical signs, etc., medical management could be attempted with Ursodiol therapy. However, if gastrointestinal signs recur and/or cranial abdominal pain is noted, cholecystectomy may be considered.

- Given the other mild changes, fluid, nodes, mucosal speckling, if gastrointestinal signs return, recheck imaging of a fasted abdomen may be warranted prior to pursuing cholecystectomy.

- A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory could be considered for further evaluation of GI and pancreatic function. However, this is considered low priority at this time, given resolution of clinical sings.

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AP 96.6% MI 1.4 TIS 0.3
prostate
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RT
1 Dist 4.55 cm
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RT
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2 Dist 0.54 cm
3 Dist 0.54 cm
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mesenteric lymph
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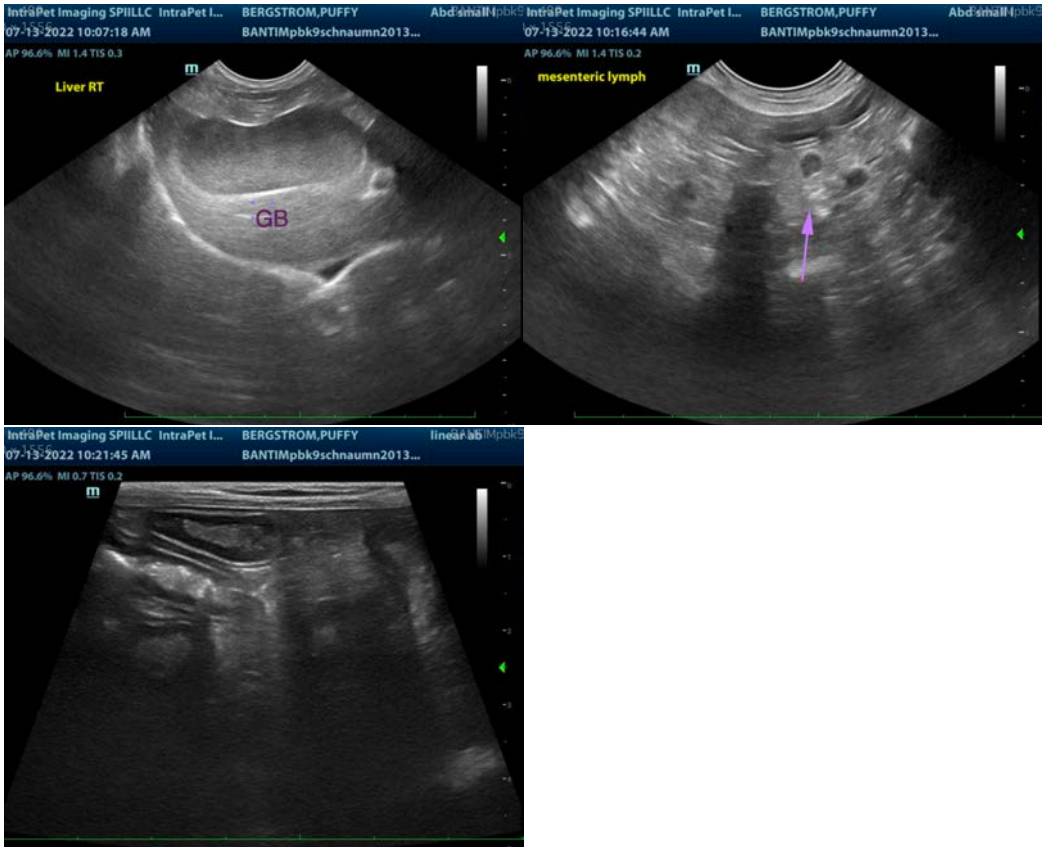
AP 96.6% MI 0.9 TIS 0.1



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