



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT** Bailey Prial Hx of DM, freq. pancreatitis. Recent episodes of hyporexia and lethargy. Meds: Vetsulin 4U bid

**SPECIES** Abnormal PE/Chem/CBC/UA Results: ALP 819, gluc 243, Na/K 26, CPL 313, ACTH stim 2/2022 wnl.  
USG 1.035, 3+ glucose

Canine

**BREED 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.

**SEX**

Spayed Female

The right kidney is normal in size (4.38 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.

**AGE**

10 Years

The left kidney is normal in size (4.19 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.

**WEIGHT**

9.2 Pounds

**Adrenal Glands**

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

The right adrenal gland is normal in size (1.58 cm long x 0.71 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 (1.57 cm long x 0.39 cm at the cranial pole and 0.48 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**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.

**HOSPITAL NAME**

Basking Ridge AH

**Liver**

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

**REFERRING VET**

Dr. Hollo

**INVOICE**

45827

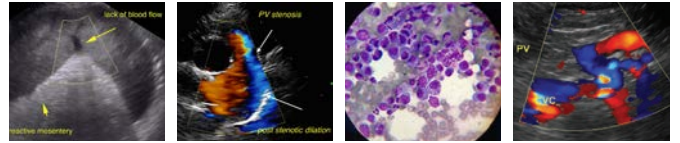
**DATE**

3/9/23

Gallbladder is mildly overdistended with 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.

**Gastrointestinal**

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta.



**PATIENT**

Bailey Prial

There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

**SPECIES**

Canine

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 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.

**BREED**

Maltese

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

***Pancreas***

**SEX**

Spayed Female

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.

**AGE**

10 Years

***Free Abdomen***

**WEIGHT**

9.2 Pounds

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

**ULTRASONOGRAPHIC FINDINGS**

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- **Hyperechoic hepatomegaly** - This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible, but considered less likely.
- **Emerging 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.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given this patient's reported history of diabetes, if not recently evaluated, a urine culture is recommended to rule out an occult urinary tract infection.

**REFERRING VET**

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Further evaluation of digestion and absorption could be considered with a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory.

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Given the appearance of the gallbladder, an emerging mucocele could potentially be contributing to this patient's intermittently picky appetite, especially if there is concurrent nausea, vomiting, cranial abdominal pain, etc. Therefore, empirical management with Ursodiol +/- broad-spectrum antibiotics could be considered with monitoring of both the ALP and the appearance of the gallbladder for improvement. Recheck liver enzymes are recommended in 2-3 weeks after starting medications. If liver enzymes are improving, antibiotics should be continued until they plateau. They likely won't normalize, given the concurrent diabetes. If liver enzymes do not improve, antibiotics should not be continued long-term, but Ursodiol is ok to continue indefinitely if tolerated.

Finally, some patients simply won't eat in times of unregulated diabetes or hyperglycemia. Therefore, if regulation of this patient is difficult, placement of a freestyle libre sensor could be considered for more continuous at home glucose monitoring.



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**SPECIES**

Canine

**BREED**

Maltese

**SEX**

Spayed Female

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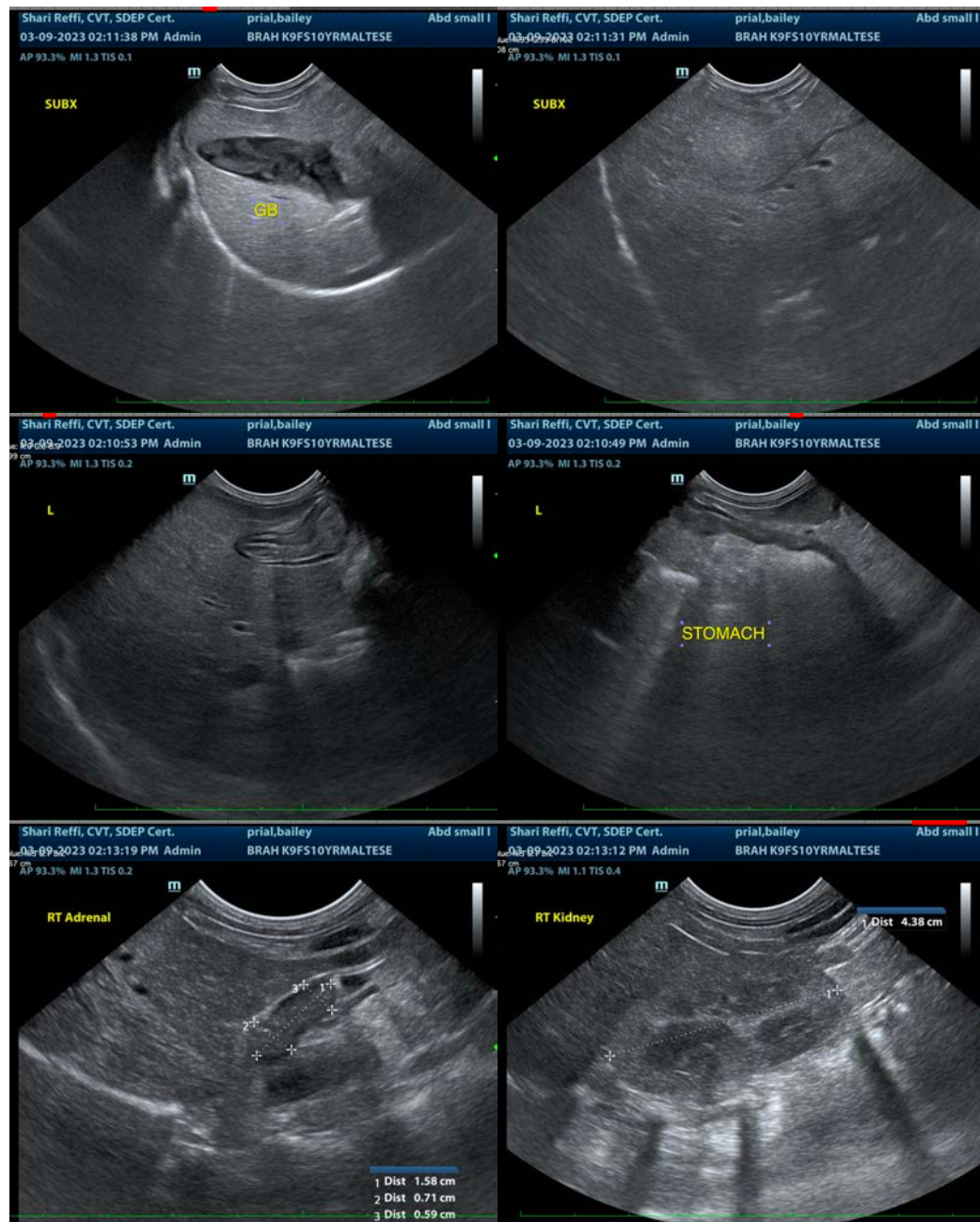
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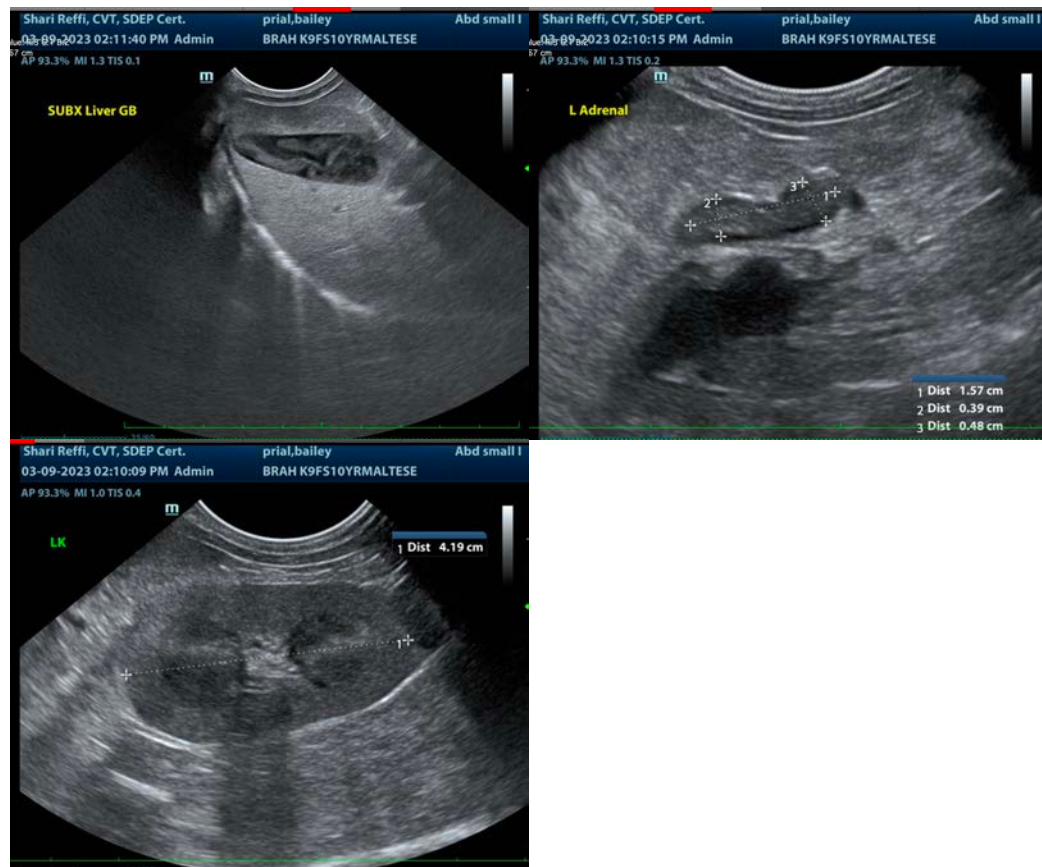
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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