



**PATIENT PRESENTING CLINICAL SIGNS**

Dove Haza Vomiting and not eating, elevated liver values. Current Meds: Cerenia 0.4mls on 7/10/23.

**SPECIES** Abnormal PE/Chem/CBC/UA Results: ALT 2952; AST 470; ALP 1880; GGT 23; TBILI 1.1; CHL 101; CHOL 428

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED** *Urinary System*

Toy Poodle 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 (3.52 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**

12 Years The left kidney is normal in size (3.29 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**

9.3 Pounds *Adrenal Glands*

**INTERPRETED BY** The right adrenal gland is normal in size (0.52 cm at the cranial pole and 0.50 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Beth Johnson, DVM  
DACVIM

The left adrenal gland is normal in size (0.56 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*

**HOSPITAL NAME**

Mount Olive VH

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.

**REFERRING VET**

Dr. Jones

*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. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

**INVOICE**

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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.

**DATE**

7/13/23



**PATIENT** *Gastrointestinal*

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

**SPECIES**

Canine

**BREED**

Toy Poodle

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.

**SEX**

Spayed Female

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

**Pancreas**

**AGE**

12 Years

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.

**WEIGHT**

9.3 Pounds

**Free Abdomen**

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

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

There is no apparent lymphadenopathy noted in these images.

**ULTRASONOGRAPHIC FINDINGS**

**IMAGING PERFORMED BY**

Shari Reffi, CVT

- **Very mild 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.
- An obvious cause for the reported increased liver enzymes is not identified in these images. Microscopic disease such as Leptospirosis, bacterial cholangiohepatitis, chronic active hepatitis, copper-associated hepatotoxicity, other hepatotoxicity, infiltrative neoplasia (considered unlikely), etc. cannot be definitively ruled out.

**HOSPITAL NAME**

Mount Olive VH

**REFERRING VET**

Dr. Jones

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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Recommendations include an "antigen search" for sources of reactive hepatopathy (including testing for Leptospirosis), followed by a course of empirical antibiotics and hepatic nutraceuticals, with monitoring of ALT for improvement. If improvement is noted, antibiotics should be continued until liver enzymes either normalize or plateau (recheck every 2-3 weeks); however, if improvement is not noted and/or enzyme increase progresses, antibiotics should not be continued long term and sampling, beginning with a FNA of the liver if patient's coagulation status is appropriate or progressing to a liver biopsy (including copper level assessment) may ultimately be warranted.



**PATIENT**

Dove Haza

**SPECIES**

Canine

**BREED**

Toy Poodle

**SEX**

Spayed Female

**AGE**

12 Years

**WEIGHT**

9.3 Pounds

**INTERPRETED BY**

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DACVIM

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Mount Olive VH

**REFERRING VET**

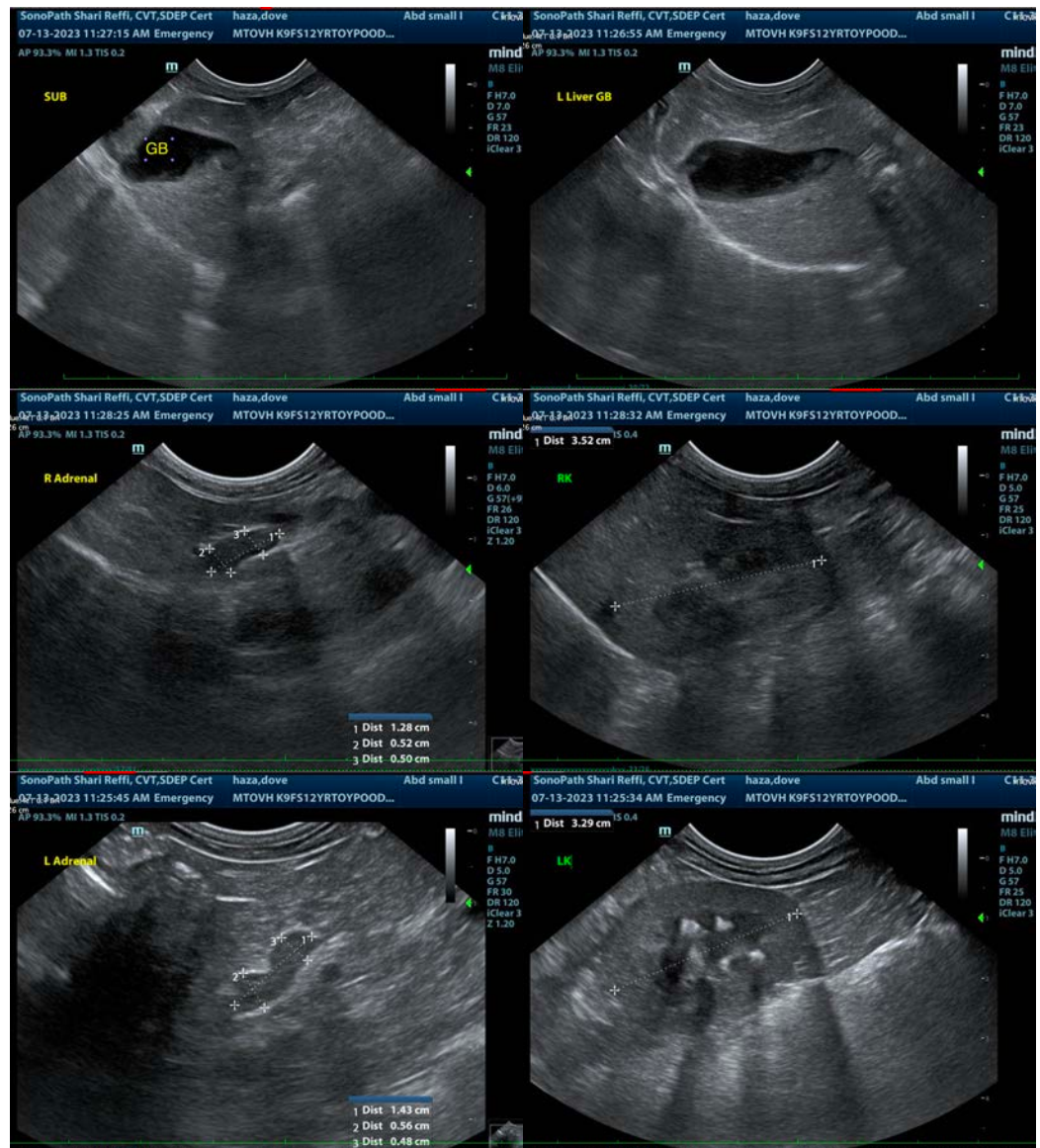
Dr. Jones

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**DATE**

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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**  
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