



**PATIENT PRESENTING CLINICAL SIGNS**

**Kira Bacani** History of liver value elevation (ALP). Clinically normal. First noted January 1 of 2020. Started prednisone for skin problems and ALP increased further. After stopped prednisone ALP remained elevated. See below. Current medications include Apoquel, DES, and a zinc supplement (zinc responsive dermatosis).

**SPECIES**

**Canine** Abnormal PE/Chem/CBC/UA Results: ALP values 1/1/2020: 371 6/1/2020: 1032 Started prednisone 1/13/2021: 1331 off prednisone 1/3/2022: 1062 6/14/2022: 792 Bile acids 6/2/2022 pre and post normal

**BREED**

Siberian Husky

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**SEX**

Spayed Female

Urinary bladder is only mildly distended (empty). Visible contents are anechoic. Urinary bladder wall is unable to be fully assessed for pathology without further distension. No visible masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

**AGE**

11 years

If there are urinary signs and/or concern for urinary bladder pathology, reassessment after complete filling is recommended.

**WEIGHT**

60.6 lbs

Left kidney is normal is size (5.75 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 (6.41 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.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**Adrenal Glands**

Left adrenal gland is normal in size (0.47 cm at cranial pole and 0.59 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (1.0 cm at cranial pole and 0.79 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**IMAGING PERFORMED BY**

Dr. Budden

**HOSPITAL NAME**

Frontier VH

**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). No focal nodules or masses are observed. Splenic vasculature appears normal.

**REFERRING VET**

Dr. Budden

**Liver**

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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.

**DATE**

6/27/22



**PATIENT**

Kira Bacani

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. Some of the debris is mineral in appearance and accumulated to the inner wall creating a hyperechoic appearance to the wall. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

**SPECIES**

Canine

**Gastrointestinal**

**BREED**

Siberian Husky

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

**SEX**

Spayed Female

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 (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

**AGE**

11 years

**Pancreas**

**WEIGHT**

60.6 lbs

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**

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

There is no evidence of peritoneal effusion or apparent lymphadenopathy noted in these images.

**ULTRASONOGRAPHIC FINDINGS**

**IMAGING PERFORMED BY**

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**Primary Findings**

**HOSPITAL NAME**

Frontier VH

**Gallbladder debris (canine) with mineral noted** - 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.

**REFERRING VET**

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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Differentials are vast and non-specific. Differentials include, but are not limited to, benign nodular hyperplasia which occurs in 70% of older dogs and often does not result in an abnormal ultrasound, reactive or idiopathic/vacuolar hepatopathy, cholestasis and/or hyperadrenocorticism as well as many chronic non-hepatobiliary diseases such as chronic infections/inflammation from dental disease, IBD, neoplasia, hyperlipidemia, hypothyroidism, chronic pancreatitis, chronic stress, etc.

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There is no ultrasonographic evidence of cholestasis. Adrenocortical testing such as a low dose dexamethasone suppression test could be considered if clinical signs of hyperadrenocorticism are present. Ursodiol could be considered if gallbladder sludge is noted. A fine needle aspirate of the liver



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could be considered if patient's coagulation status is appropriate. Otherwise, recommendations include addressing any other concurrent disease and monitoring. If values are progressive, recheck imaging is recommended.

**SPECIES**

Canine

Specifically for this patient the gallbladder mineral debris is the most significant finding and recommendations include Ursodiol as well as broad spectrum antibiotics. If the ALP improves while on antibiotics then continue the antibiotics until the ALP plateaus. If the ALP does not improve on antibiotics then Ursodiol management alone is appropriate.

**BREED**

Siberian Husky

**SEX**

Spayed Female

**AGE**

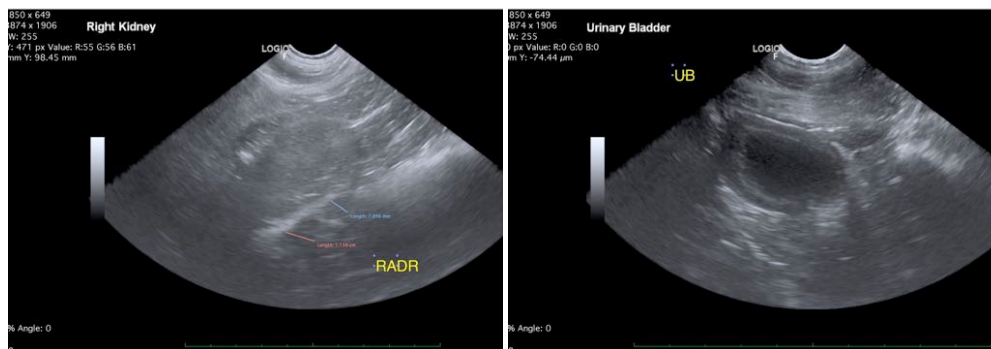
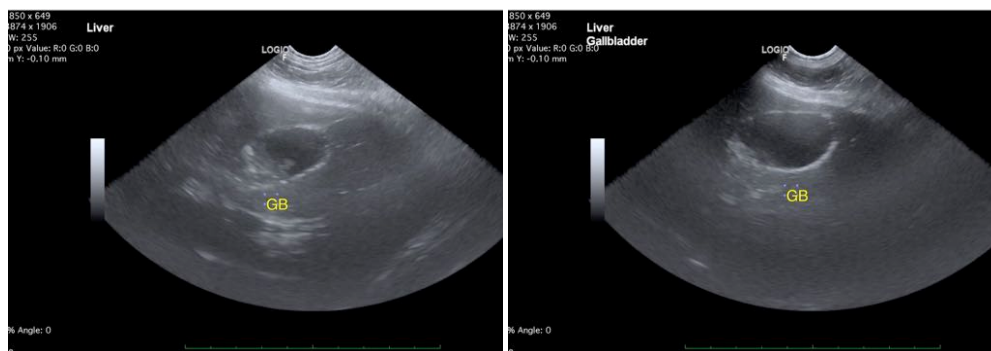
11 years

**WEIGHT**

60.6 lbs

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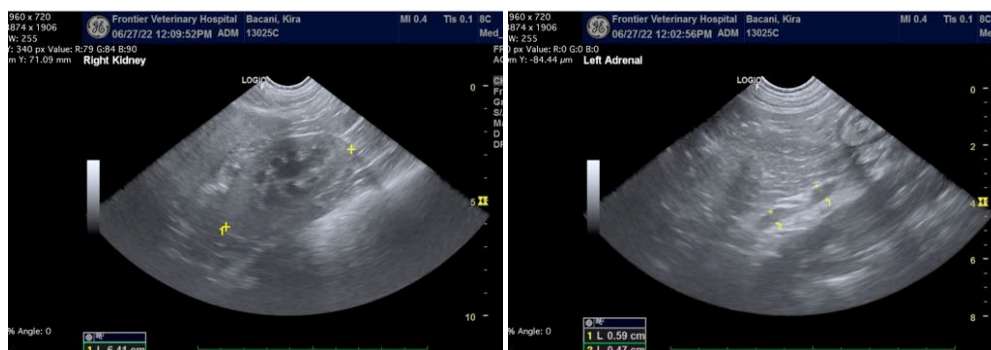
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**HOSPITAL NAME**

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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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