



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT** Freya Baril  
**SPECIES** Canine  
**BREED** Husky Cross  
**SEX** Spayed Female  
**AGE** 6 years  
**WEIGHT** 29.8 lbs

Presented to emergency on February 6th with a history of collapse and heavy breathing. Three day history of anorexia and one week history of lethargy. Thin with muscle wasting over caudal thoracic and lumbar paraspinals. Bloodwork showed regenerative anemia and thrombocytopenia with unremarkable chemistry. Large spleen noted on rads and A-FAST exam as well as scant abdominal fluid. Just started prednisone and doxycycline pending results of this scan. Brief scan of heart appeared to be normal.  
 Abnormal PE/Chem/CBC/UA Results: 2/6/22 CBC HCT=22.1 (37.3-61.7) HGB 6.9 (13.1-20.5) RBC 3.07 (5.65-8.87) Retics 397.1 (10-110) PLT 53 (148-484) Chem Cholesterol 1.53 (2.84-8.26) Amyl 393 (500-1500) PCT 0.09% (0.14-0.46) UA Analyzer pH=7.0 BIL 3 mg/dL BLD 10 Ery/microliter

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

Urinary bladder is moderately distended with anechoic contents. There is hyperechoic, non-shadowing, echogenic density along the mucosa of the dependent wall. No masses or mineral are observed. The urinary bladder trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The kidneys are bilaterally normal in size and echogenicity. What I believe is the left kidney measures 6.0 cm. What I believe is the right kidney measures 7.4 cm. Both kidneys are irregular in shape caused by hyperechoic, wedged shaped infarcts. There is normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction bilaterally. In what I believe is the right kidney is mild pyelectasia.

**Adrenal Glands**

Left adrenal gland is normal in size (0.47 cm at cranial pole and 0.54 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

Right adrenal gland is normal in size (0.47 cm at cranial pole and 0.51 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

**Spleen**

Spleen is markedly large in size with intact smooth margins, but slightly lumpy bumpy contour created by an overall heterogenous nodular parenchyma. The splenic vasculature appears normal.

**Liver**

Liver is subjectively enlarged. Margins are smooth but round. 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. No focal lesions are observed. 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.

**INTERPRETED BY**

Beth Johnson, DVM  
 DACVIM

**IMAGING PERFORMED BY**

Dr. Markland

**HOSPITAL NAME**

Island Mobile Paws VS

**REFERRING VET**

Central Island VEH

**INVOICE**

95861

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**Gastrointestinal**

The visible gastric wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm). The stomach is empty.

**SPECIES**

Canine

The small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). There are no luminal contents noted within small intestines.

**BREED**

Husky Cross

Colon is normal in wall thickness (< 0.2 cm) and layering.

**SEX**

Spayed Female

**Pancreas**

Pancreas has normal homogenous echotexture and is normal in echogenicity and smooth margination. There is no evidence of peripancreatic inflammation.

**AGE**

6 years

**Free Abdomen**

Lymph nodes are normal with no observed enlargement.

**WEIGHT**

29.8 lbs

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

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- Hyperechoic hepatomegaly – most consistent with benign steroid (endocrine) hepatopathy or reactive or idiopathic hepatopathy. Infiltrative neoplasia such as round cell neoplasia is also possible, but considered less likely.
- 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.
- Severe nodular splenomegaly, which can be seen with benign conditions such as extramedullary hematopoiesis or lymphoid hyperplasia. However, infiltrative neoplastic round cell neoplasia is also a differential and should be considered.
- Bilateral renal infarcts.
- Non-shadowing echogenic density in the urinary bladder. This is consistent with a potential blood clot given the reported thrombocytopenia.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Ultimately a FNA of the spleen and liver is what is recommended in this patient to help rule out infiltrative round cell neoplasia versus benign extramedullary hematopoiesis in the spleen. A comprehensive infectious disease/tick borne disease panel should also be considered with an extremely small such as a 25-gauge needle and a platelet count > 50-70000. A FNA of the spleen may be safe; however, there is an increased risk of hemorrhage and close monitoring for hemorrhage and



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preparation to intervene should be in place prior to the procedure. Other procedures that are less risky for hemorrhage include a bone marrow that can be considered to look for infiltrative round cell neoplasia without aspirating the spleen. Three view thoracic radiographs are recommended to look for further evidence of infiltrative neoplasia such as lymphadenopathy, etc. that is less likely to happen with cytopenia then splenomegaly, which can be a result of extramedullary hematopoiesis. Otherwise, medical management as is reportedly in place is recommended with monitoring of the platelet count at which time further diagnostics may be possible with less risk.

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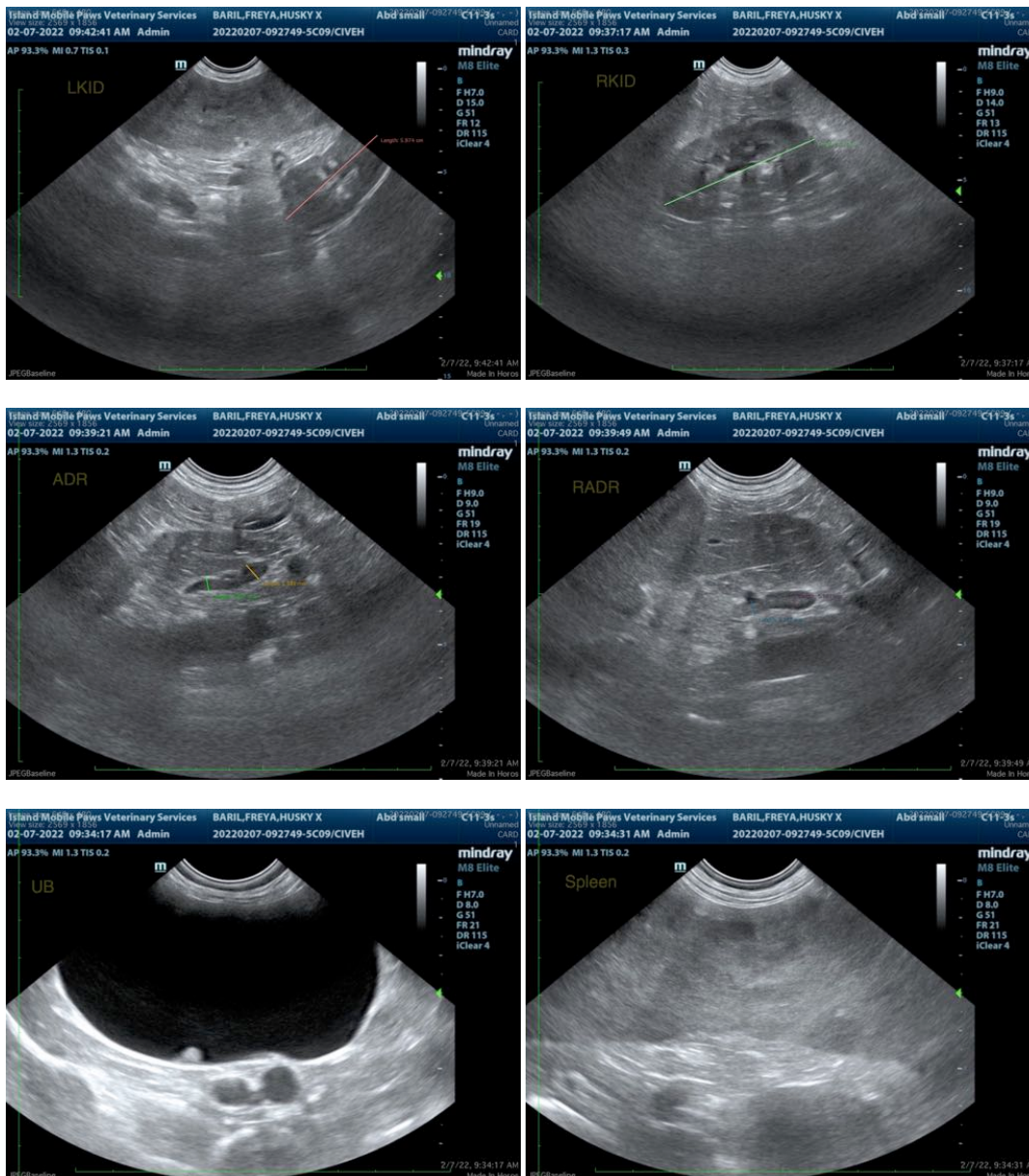
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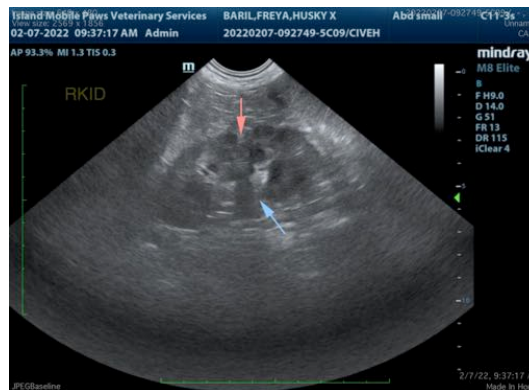
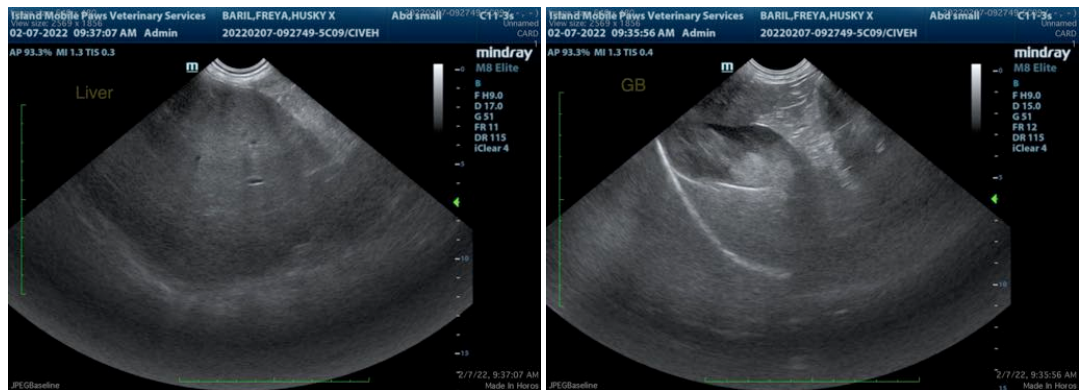
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

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