



**PATIENT PRESENTING CLINICAL SIGNS**

Baxter CAH 12 yo MN mixed breed. History of weight loss, lethargy, decreased appetite, bilirubinuria. Abnormal PE/Chem/CBC/UA Results: CBC/chem-nsf, UA-bilirubin 3+

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Canine **Urinary System**

Urinary bladder is mildly to moderately distended with anechoic contents. Apical urinary bladder wall is diffusely thick (1.0 cm thick). Mucosa is hyperechoic and irregular. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

**BREED**

Shepherd X The prostate is not visualized in these images. However, there is no pathology noted in the area.

**SEX**

Right kidney is normal in size (7.34 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.

Neutered Male

**AGE**

Left kidney is normal in size (6.5 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.

12 Years

**WEIGHT**

**Adrenal Glands**  
Right adrenal gland is normal in size (1.76 cm long x 0.73 cm at cranial pole and 0.80 cm at caudal pole), shape and contour. In the area of the cranial pole of the right kidney, there is a round, hypoechoic structure that measures 1.7 cm wide, which can't be definitively traced as an enlarged cranial pole of the right adrenal gland versus a lymph node. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

50 Pounds

Left adrenal gland is normal in size (2.4 cm long x 1.0 cm at cranial pole and 0.95 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

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**Spleen**

Spleen is subjectively enlarged in size with rounded margins but intact capsule. Parenchyma is homogeneously coarse/mottled in echotexture and normal to hypoechoic in echogenicity. Multiple hypoechoic, non-capsule disrupting nodules are present, the largest of which measures 1.6 cm in the mid body. Splenic vasculature appears normal.

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**Liver**

Liver is subjectively enlarged with rounded margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature appears normal.

**REFERRING VET**

Dr. Elaine Petrone

The gallbladder is moderately distended with anechoic bile and gravity dependent echogenic sediment. The wall is smooth without visible thickening. A 1.0 cm shadowing cholelith is noted. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

**INVOICE NUMBER**

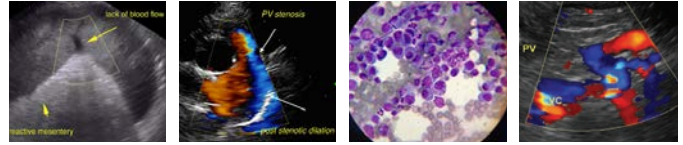
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**DATE**

1/11/22



<b>PATIENT</b>	<b><i>Gastrointestinal</i></b>
Baxter CAH	The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.
<b>SPECIES</b>	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. In the mid abdomen, there is a focal loop of bowel that is thick and has a loss of normal layering and appears mildly corrugated. The image of this loop of bowel is provided in the still images. However, it cannot be traced in the videos. Therefore, definitive origin cannot be determined.
Canine	
<b>BREED</b>	
Shepherd X	The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.
<b>SEX</b>	<b><i>Pancreas</i></b>
Neutered Male	The left pancreas is prominent, hypoechoic, mildly heterogenous, and is surrounded by hyperechoic mesentery. No free fluid is noted.
<b>AGE</b>	<b><i>Free Abdomen</i></b>
12 Years	There is no evidence of peritoneal effusion. There is a prominent, round, hypoechoic lymph node medial to the left kidney in the area of the left adrenal gland.
<b>WEIGHT</b>	<b>ULTRASONOGRAPHIC FINDINGS</b>
50 Pounds	<ul style="list-style-type: none"> <li>• Focal bowel thickening with loss of layering in the mid abdomen provided as a still image – Most consistent with infiltrative neoplasia. Additional images would be required for further evaluation.</li> <li>• Chronic Cystitis – Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely give the location and diffuse nature of the changes.</li> <li>• Coarse splenomegaly with hypoechoic nodules – can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.</li> <li>• Heterogeneous liver - Differentials for hepatic changes include both benign steroid (vacuolar) hepatopathy or extramedullary hematopoiesis as well as infiltrative round cell or metastatic neoplasia.</li> <li>• Gallbladder debris and a shadowing cholelith - 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.</li> </ul>
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Dr. Elaine Petrone	
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**PATIENT** • Mild pancreatitis

Baxter CAH • Reactive mesenteric lymphadenopathy with small chance of infiltrative neoplasia.

**SPECIES** • Possible right cranial pole adrenomegaly – Rule out normal variant versus hypoadrenocorticism versus other.

Canine

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**BREED**

This patient’s clinical signs likely result from a combination of acute pancreatitis as well as possible bowel mass versus severe focal enteritis. Infiltrative neoplasia affecting the liver, spleen, lymph node and bowel is also possible. Recommendations at this time include fine needle aspirate of the liver and spleen and enlarged lymph nodes if patient’s coagulation status is appropriate. A urine culture may be indicated based on the urinary bladder changes if there is any indication to do so on the urinalysis such as pyuria or bacteriuria.

Shepherd X

**SEX**

In the meantime, treatment recommendations include medical supportive care of acute pancreatitis and gastroenteritis with antiemetics, appetite stimulants if needed, gastroprotectants, IV fluids, etc., with monitoring of both the pancreas and focal bowel changes for resolution versus progression.

Neutered Male

**AGE**

Additional imaging of the focal bowel changes as well as the right adrenal gland as follow up is recommended, and if the right adrenal gland cannot be well visualized with ultrasound, then abdominal CT scan may be indicated for better differentiation of the questionable lesions. A gastrointestinal malabsorption panel including PLI, TLI, cobalamin and folate to Texas A&M Gi laboratory is also recommended given the combination of bowel and pancreas changes.

12 Years

**WEIGHT**

50 Pounds

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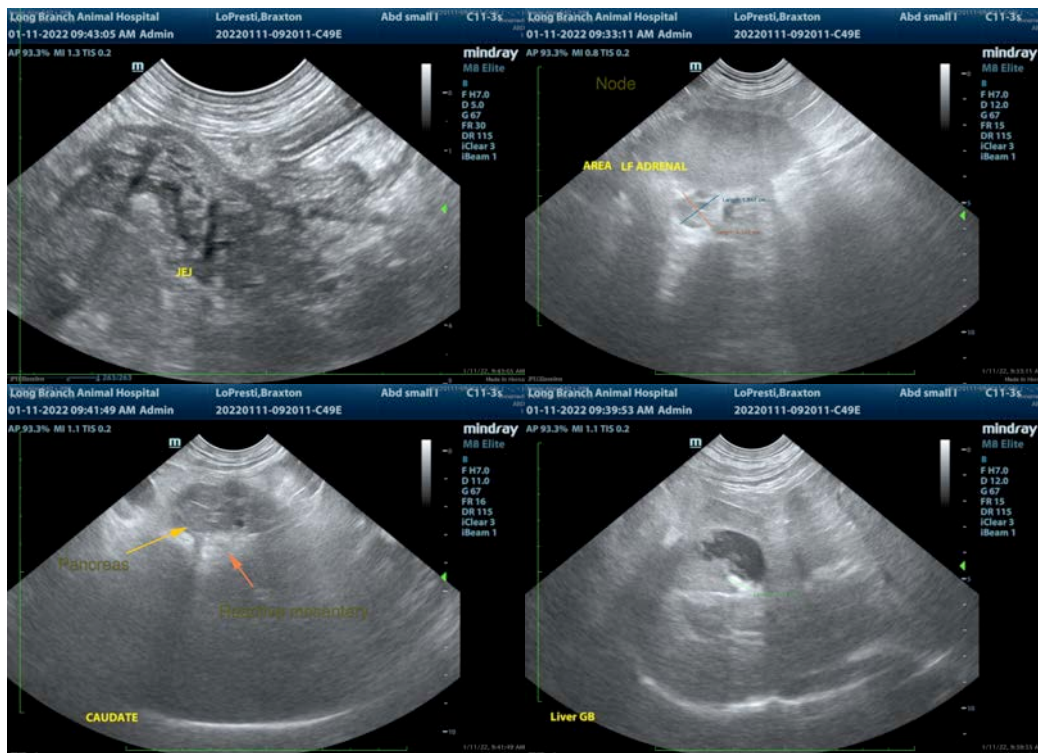
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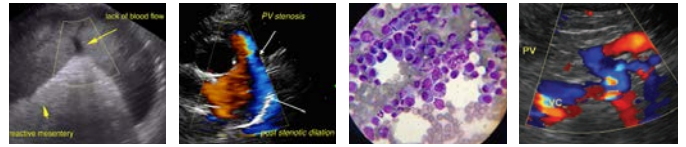
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**PATIENT**

Baxter CAH

**SPECIES**

Canine

**BREED**

Shepherd X

**SEX**

Neutered Male

**AGE**

12 Years

**WEIGHT**

50 Pounds

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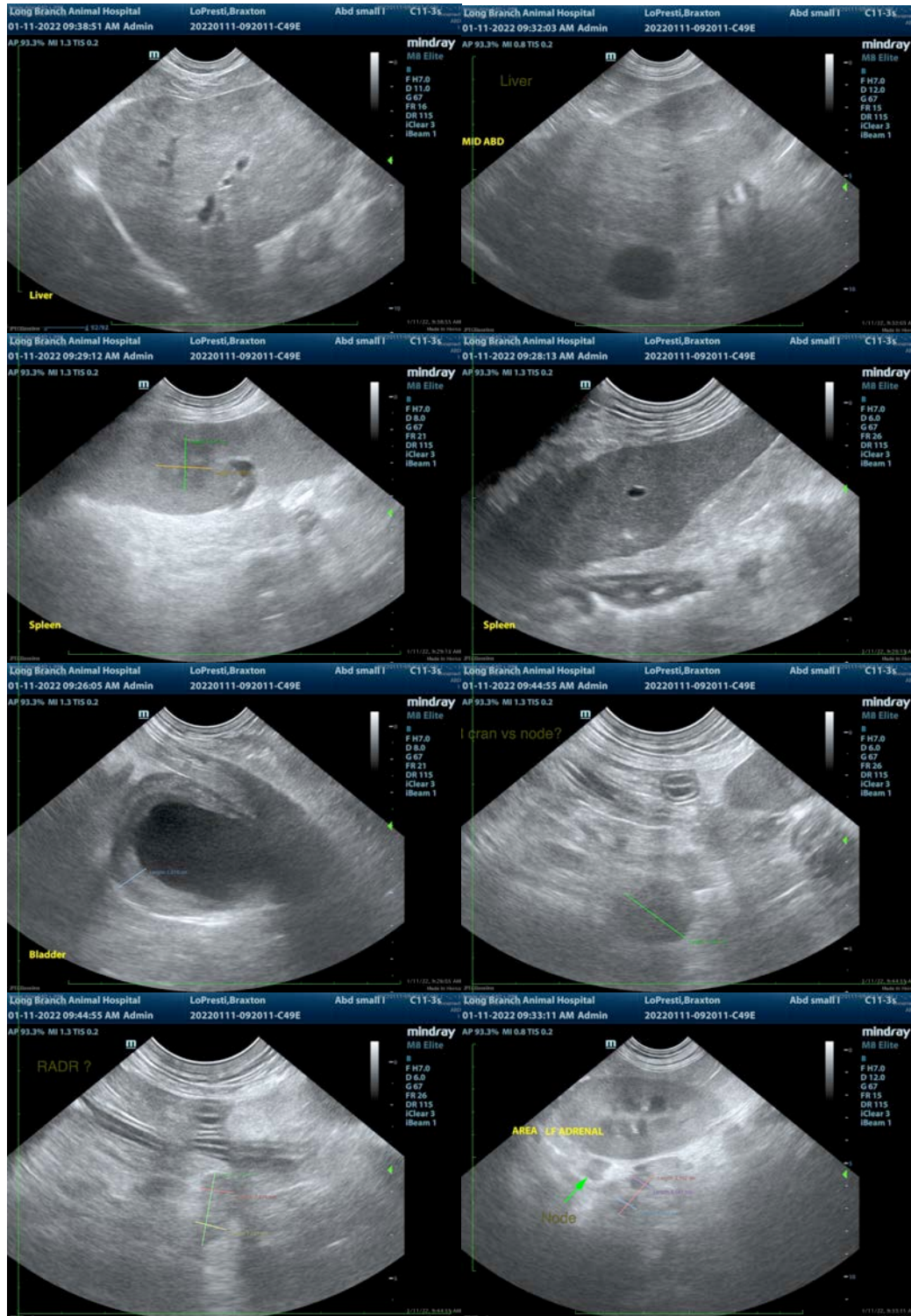
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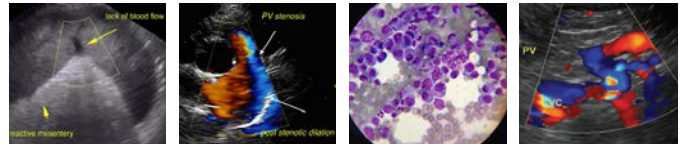
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**PATIENT**

Baxter CAH

**SPECIES**

Canine

**BREED**

Shepherd X

**SEX**

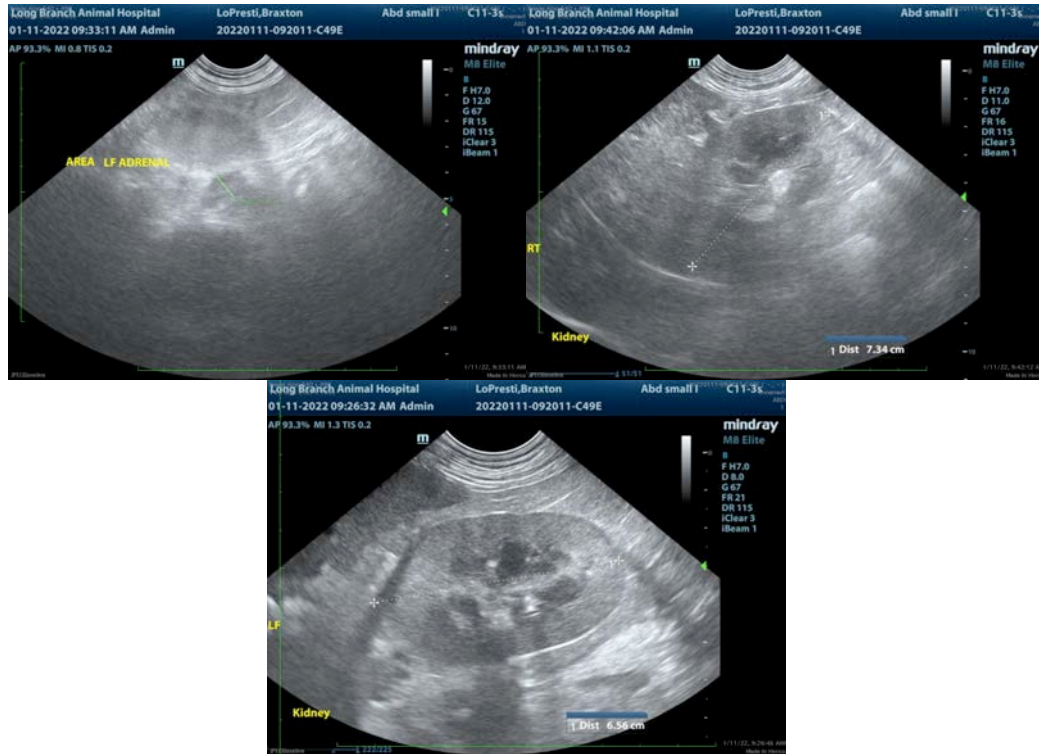
Neutered Male

**AGE**

12 Years

**WEIGHT**

50 Pounds



The information and recommendations provided are based on the images presented by the referring veterinarian. 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.

**INTERPRETED BY**

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