



**PATIENT**

Anna Davis

**PRESENTING CLINICAL SIGNS**

History: Presents for vomiting for over 24 hours. Last ate Thursday PM or Friday AM. She has been straining to defecate today.

**SPECIES**

Owner gave 500 mls LRS SQ today

Canine

Abnormal PE/Chem/CBC/UA Results/CBC: Lymphopenia  
COMP: Very lipemic sample. phosphorus 6, total protein 8.1, albumin 4.1, ALT 450, ALP 289, amylase >2500, lipase unreadable

**BREED**

EPOC: lactate 3.05, potassium 3.1

Lab Mix

PCV/TS: 50%/9.4g/dL

CPL: Abnormal

Radiograph Report: Impressions

**SEX**

No evidence of small intestinal mechanical obstruction.

Gastric appearance may reflect incidental folded rugae, food or foreign material (likely non obstructive).

Spayed Female

Mild hepatomegaly e.g. metabolic/vacuolar hepatopathy, less likely inflammatory neoplastic or congestive disease.

The mineral opacity may reflect dystrophic mineralization or intestinal foreign material, without evidence of obstruction.

**AGE**

9.5 years

Reduced peritoneal detail may be summation artifact or reflect peritonitis/peritoneal effusion - e.g.

pancreatitis, gastroenteritis, neoplasia.

Serosanguinous fluid aspirated during ultrasound

**WEIGHT**

34.47 kg

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**INTERPRETED BY**

Kathleen Sennello  
DVM, MS, Diplomate  
ACVIM (Small Animal  
Internal Medicine)

The urinary bladder is moderately distended with anechoic urine. The bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney has a normal shape and size (6.35 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**IMAGING PERFORMED BY**

Dr. Kari Lemanski

The right kidney has a normal shape and size (6.88 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**HOSPITAL NAME**

Animal EH Deland

**Adrenal Glands**

The area of the left adrenal gland is normal in size. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**REFERRING VET**

Dr. Kari Lemanski

The area of right adrenal gland is normal in size. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

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**Spleen**

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

**DATE**

6.26.23



**PATIENT**

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**Liver**

The liver is large in size, and echogenicity with rounded peripheral margins. The parenchyma is heterogenous in echotexture with numerous indistinct hypoechoic, ill-defined nodules varying in size from .25-1.0cm. The visible portions of the vasculature and biliary tract appear normal. No large focal lesions are observed.

**SPECIES**

Canine

**BREED**

Lab Mix

The gall bladder lumen is significantly distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

**SEX**

Spayed Female

**Gastrointestinal**

There is mild gastric wall thickening. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

**AGE**

9.5 years

The visualized areas of duodenum (0.59 cm), jejunum (0.38 cm) and ileum have a uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed. the duodenum appears moderately fluid-distended and severely thickened, likely with edema secondary to the local peripancreatic inflammation.

**WEIGHT**

34.47 kg

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

**Pancreas**

The right limb of the pancreas is large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with (mild/moderate or severe) pancreatitis.

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**Free Abdomen**

There is a small amount of free abdominal fluid. No significant lymphadenopathy is noted. There is severe generalized cranial abdominal inflammation with a focus around the right limb of the pancreas. The medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

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**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

**HOSPITAL NAME**

Animal EH Deland

- Severely hypoechoic, large, irregular right limb of the pancreas with surrounding peripancreatic inflammation and a small amount of fluid.
- Heterogenous liver -The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

**REFERRING VET**

Dr. Kari Lemanski

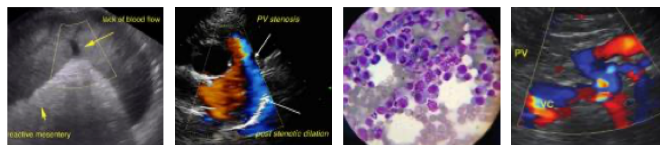
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- Moderately distended gallbladder – There is no overt evidence of obstructive disease, but mild or early post-hepatic obstruction secondary to pancreatitis is possible.



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- Mild gastric wall thickening -The stomach wall thickening could be consistent with inflammation, edema, infiltrative neoplasia, imaging artifact due to rugal folds, other.

**SPECIES**

Canine

- Focal duodenitis and duodenal wall thickening – This is likely secondary to local pancreatic inflammation.

**BREED**

Lab Mix

- Severe mesenteric inflammation and free fluid – Findings are most consistent with focal peritonitis secondary to pancreatitis.

**SEX**

Spayed Female

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The right limb of the pancreas is hypoechoic, irregular and surrounded by hyperechoic mesentery. This is causing secondary gastritis/duodenitis and focal peritonitis. These changes are most consistent with severe pancreatic inflammation. Continued monitoring with ultrasound is warranted during therapy, looking for development of a possible abscess, necrotic region, etc. An intestinal foreign body cannot be definitively ruled out, but none is observed. There is no obvious evidence of an obstructive pattern at this time. Continued vigilance is warranted.

**AGE**

9.5 years

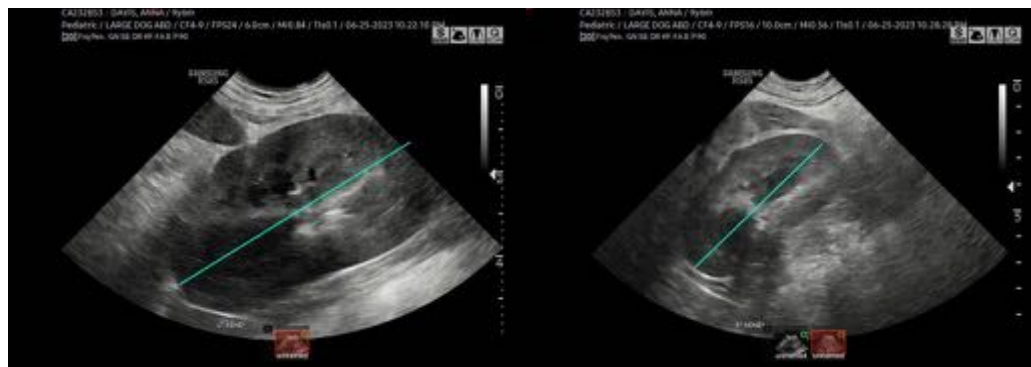
The liver appears significantly heterogenous. This is a nonspecific finding. Given the pancreatic changes, the significance of this is unclear. If pancreatitis resolves and liver enzyme elevations persist, you could consider a liver function test and fine-needle aspirate of the liver.

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**HOSPITAL NAME**

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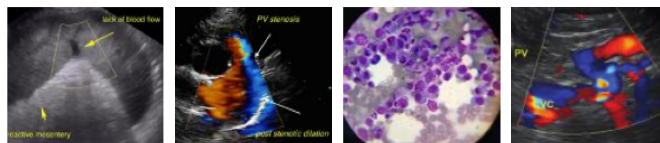
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**SPECIES**

Canine

**BREED**

Lab Mix

**SEX**

Spayed Female

**AGE**

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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.

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