



PATIENT PRESENTING CLINICAL SIGNS

Jake Zapel MN Aussie DOB 2007 BW 46# Presented 1/13/22 for drooling, painful mouth after O discontinued carprofen for 36 hours. O discontinued due to acute episode of vomiting. During PE area cranial to bladder palpated with a mass effect and tender. Blood work sent separately with elevated platelets, ALT and AlkP. Xrays of abdomen unremarkable. Mouth: 3+ calculus, 3+ gingivitis. No obvious pain along roots.

SPECIES

Canine

BREED

Aussie

SEX

Neutered Male

AGE

15 years

WEIGHT

46 Pounds

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The bladder wall is diffusely thickened and slightly irregular measuring 0.71 cm. The area of the trigone and proximal urethra (to a depth of 2cm) and ureteral papillae appear normal with no evidence of masses or calculi. The findings are most consistent with diffuse cystitis or lack of urine distension.

The prostate is normal at 1.3 cm.

The left kidney has a normal shape and size (5.7 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.

The right kidney has a normal shape and size (5.75 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.

INTERPRETED BY

Kathleen Sennello DVM,
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Adrenal Glands

The left adrenal gland is normal in size measuring 0.74 cm at the caudal pole 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.

The right adrenal gland is somewhat irregular and slightly large measuring 1.2 cm at the cranial pole, 0.72 cm at the caudal pole and 3.4 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is somewhat irregular in appearance in that it has slightly irregular markings, but it is not overtly enlarged so it can be a variation of normal.

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

HOSPITAL NAME

Sierra Animal Wellness
Center

REFERRING VET

Dr. Roberts

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.

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Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of

DATE

1/14/22



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the vasculature and biliary tract appear normal. There are multiple ill-defined, hypoechoic nodules visualized in the liver. One measured 1.2 cm, a smaller lesion measuring 1.33 x 0.9 cm and a peripheral lesion measuring 2.32 x 3.49 cm. The gallbladder lumen is moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

SPECIES

Canine

Gastrointestinal

BREED

Aussie

The stomach contains minimal luminal contents. 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.

SEX

Neutered Male

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. The duodenum measured 0.45 cm and the jejunum measured 0.27 cm. 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

AGE

15 years

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.

WEIGHT

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Pancreas

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

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Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There are occasional prominent mesenteric lymph nodes measuring 0.65 cm and 0.55 cm. The omentum is of normal uniform echogenicity.

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Heart

A brief view of the heart was submitted. No pericardial effusion was seen.

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ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

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- Heterogenous liver with hypoechoic nodules. 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.

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- Irregular, thickened urinary bladder wall. The bladder mucosal changes could be consistent



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with cystitis or artifactual due to lack of adequate luminal distension. Bladder neoplasia cannot be ruled out but is considered unlikely in this patient.

SECONDARY FINDINGS:

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- Mildly thickened small intestine. The mild small intestinal wall changes may be a normal variant in this patient or could be consistent with an inflammatory process (e.g., inflammatory bowel disease).

BREED

Aussie

- Mild mesenteric lymphadenopathy. The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

SEX

Neutered Male

- Slightly irregular right adrenal gland. The significance of this is unclear, but consider continued monitoring with ultrasound.

AGE

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

An obvious cause for the symptoms described in the history is not visualized. The liver is somewhat nodular. These can represent benign or cancerous lesion. You can consider a FNA of one of the larger hypoechoic nodules as there is one visualized towards the periphery of the liver. Additionally you can consider a liver function test and three view thoracic radiographs.

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The right adrenal gland appears somewhat irregular, but it is normal in size. This may be an incidental finding. Consider continued monitoring with ultrasound.

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The small intestine measures as slightly thickened and there are some prominent mesenteric lymph nodes. These are mild findings, but can be a indicator of underlying gastrointestinal disease. If nausea and GI signs persist you can consider a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestine.

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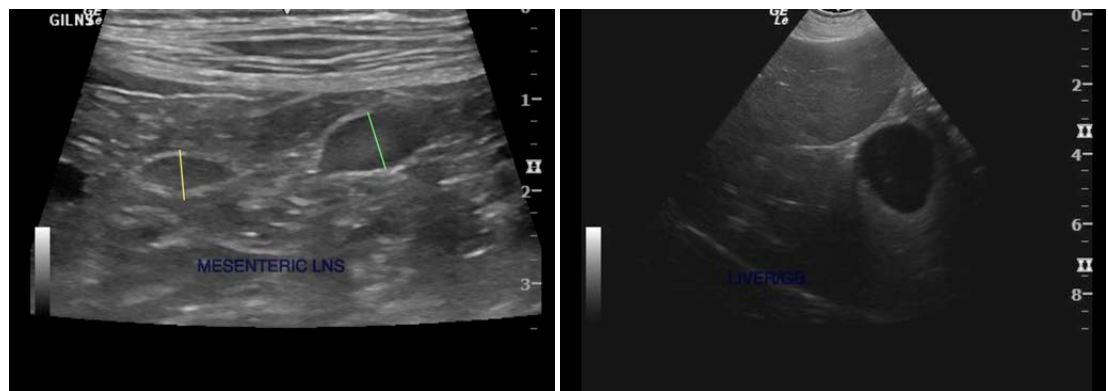
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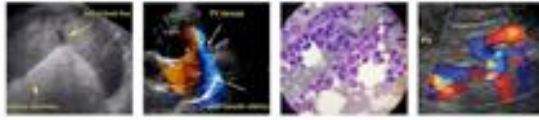


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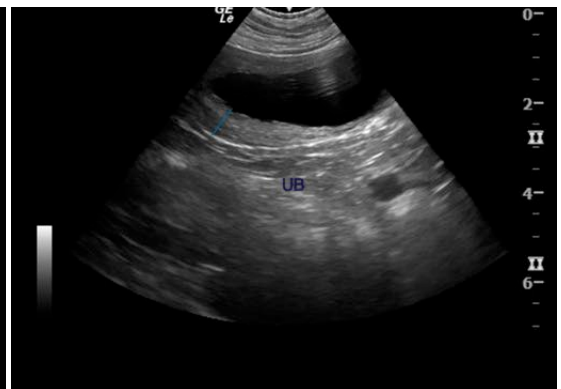
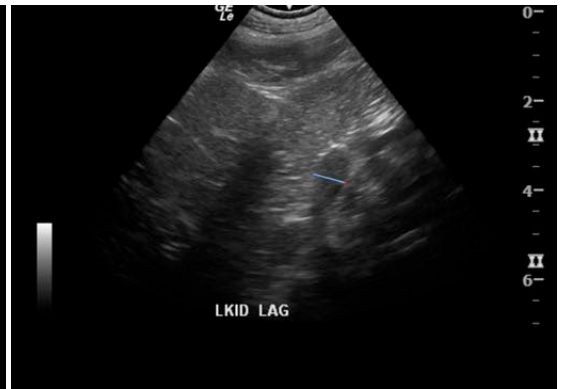
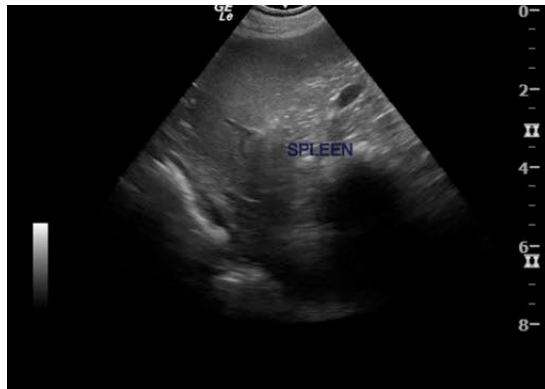
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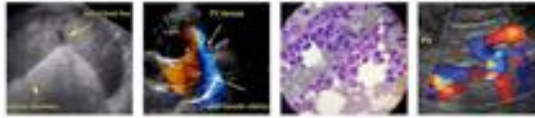
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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