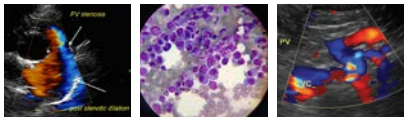
IMAGING PERFORMED BY

IntraPet.com



SonoPath
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DATE

12/10/21

PATIENT

Blizzard Wade

SPECIES

Canine

BREED

Samoyed

SEX

Spayed Female

AGE

12/6/16

WEIGHT

64.2 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. King

INVOICE

33379

PRESENTING CLINICAL SIGNS

History: Presenting Complaint: Lethargic; Not Eating; Weight Loss; Elevated Liver Values. Date: 12-07-2021
Notes: lethargy and anorexia, wt loss, vomited once 3 weeks ago, no diarrhea. rDVM sent home with Amoxi, Metron, Cerenia, Entyce and Denamarin. Still not eating, here for continued care. Other dog in house hold three weeks ago had diarrhea and lethargy, more minor increase in LE, did well with meds. At that time Blizzard was doing well, eating. Is vaccinated for lepto, but sent out panel, did MAT since had antibiotics and was vaccinated. Assessment:
discussed slim chance of IMHA given fever, jaundice and slight decrease in LE, but worried about hepatopathy, pancreatitis, lepto, other.
Current Medications: Ampicillin, Metoclopramide, Metronidazole, Cerenia, Denamarin.
Lab Results: RDVM labs increase LE ALT 721 Alkp 293 no bili 4dx negative mild anemia—37.
Radiographs: no obvious mass, other in abdomen.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: STAT requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

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 (6.25 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 (6.79 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.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.62 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 normal in size measuring 0.82 cm at the caudal pole. 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.

Spleen

The spleen is subjectively normal in size, echotexture is somewhat heterogeneous and hypoechoic. The splenic capsule is smooth but rounded. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is subjectively normal in size and hypoechoic. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder appears thickened, measuring 0.87 cm and has a double walled appearance. The luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum 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. Duodenum wall measures 0.47 cm. Jejunum wall measures 0.38 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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

Pancreas

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 moderate pancreatitis.

Free Abdomen

There is a small amount of free abdominal fluid. No mesenteric lymphadenopathy. There is a general increase in echogenicity of the omentum, particularly around the area of the pancreas, small bowel and liver.

Other

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

ULTRASONOGRAPHIC FINDINGS

- Large, hypoechoic pancreas surrounded by hyperechoic mesentery – The pancreatic changes are most consistent with moderate pancreatitis/pancreatic inflammation. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving.

- Heterogeneous, hypoechoic 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. The hypoechoic appearance of the liver favors an inflammatory or infiltrative process.

- Hypoechoic, mottled spleen – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

- Thickened gallbladder wall – This could be due to edema or inflammation/infectious. There is minimal luminal debris and no evidence of an obstruction. I suspect this is secondary to the systemic inflammation present.

- 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).

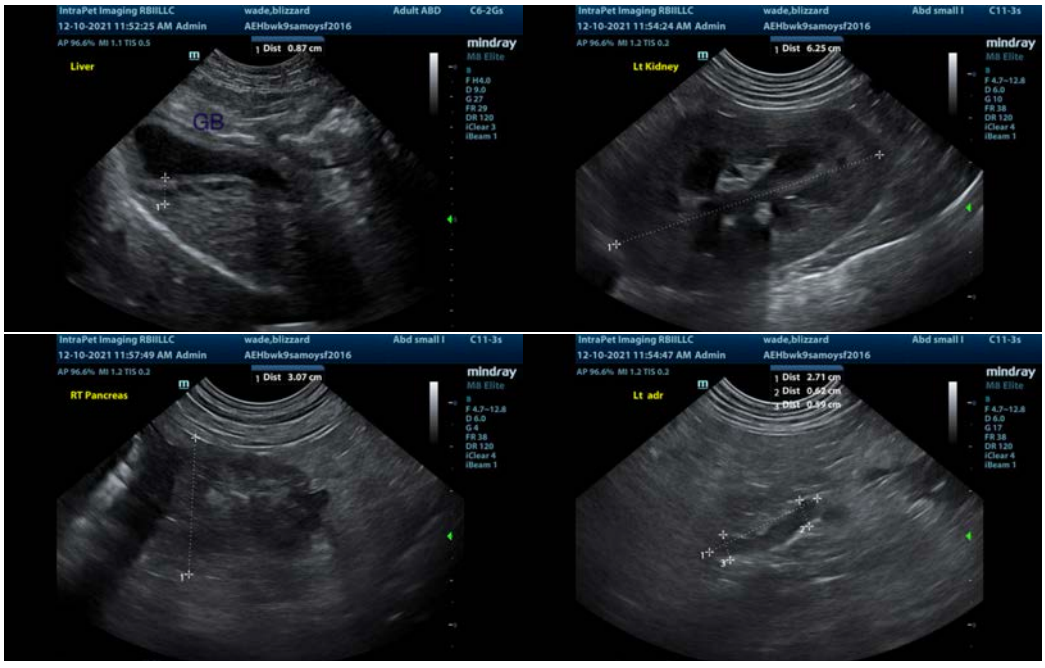
- Hypoechoic omentum around the liver and pancreas – The diffusely hyperechoic mesentery and abdominal effusion are changes consistent with peritonitis (either infectious or inflammatory). Recommend fluid analysis and culture.

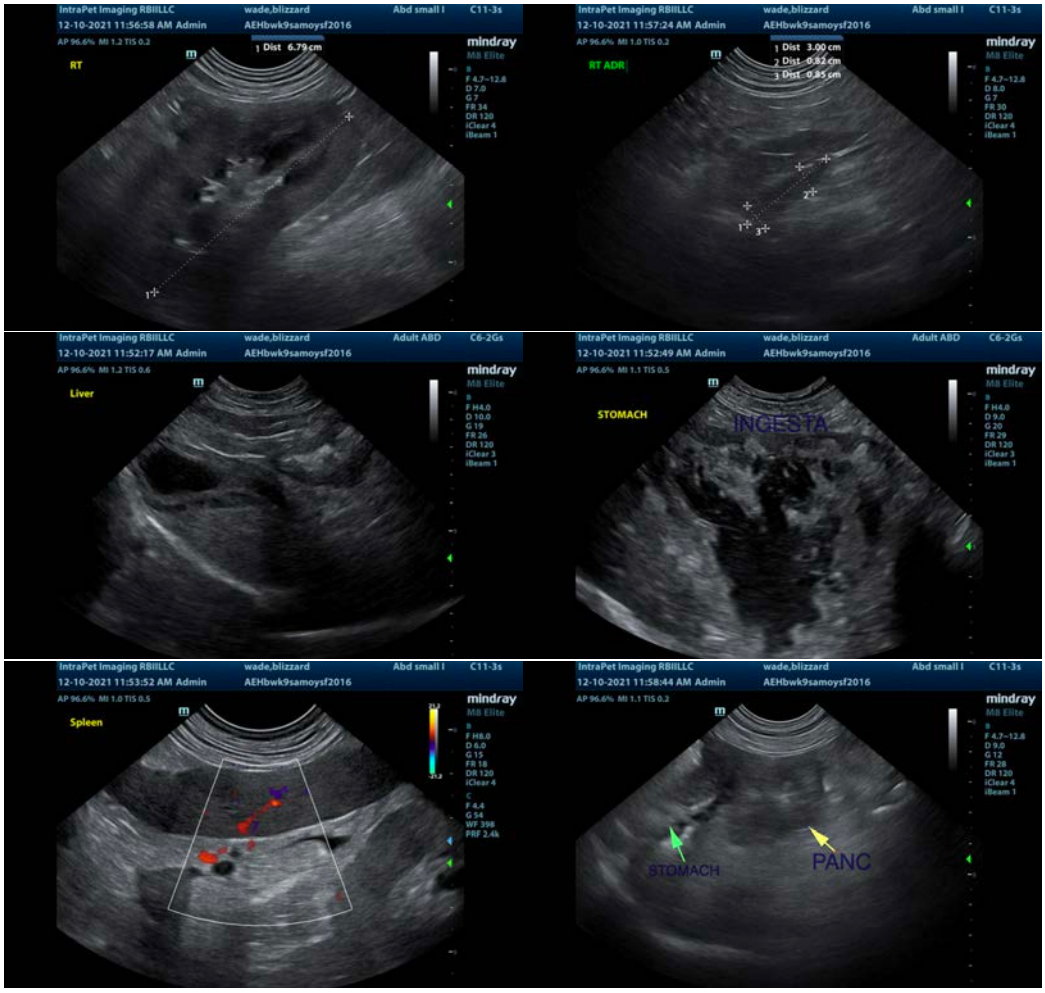
- Large amount of shadowing ingesta and fluid within the gastric lumen – This material makes evaluation of the gastric wall difficult. Correlate with feeding history. If patient is adequately fasted, then consider such differentials as delayed gastric emptying time or partial gastric obstruction (none observed).

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The abdomen appears generally severely inflamed. The pancreas is prominent and surrounded by hyperechoic mesentery. There is free fluid and peritonitis present. These findings could all be secondary to pancreatitis, but I am also concerned for the liver as a source of inflammation. No focal mass effects are visualized.

- Recommend a GI panel to Texas A&M with a quantitative PLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestine.
- Consider a fine needle aspirate of the liver, sampling of the abdominal fluid for fluid analysis and cytology, +/- fine needle aspirate of the spleen.
- Correlate findings with radiographs. An obstructive pattern was not visualized, but cannot be ruled out, particularly a gastric outflow obstruction.
- Recommend measuring bilirubin levels. If normal, consider liver function testing.
- Recommend supportive care for pancreatitis/hepatitis with IV fluids, anti-nausea medications, pain medications, antibiotics, etc.
- Consider serial radiographs and ultrasound imaging to monitor progress along with following blood work values.





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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