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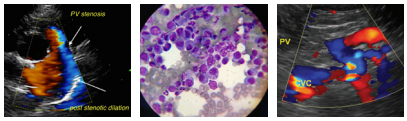

SonoPath
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DATE

3/11/22

PATIENT

Bobo Heffernan

SPECIES

Canine

BREED

Yorkie X

SEX

Neutered Male

AGE

7/20/16

WEIGHT

12.4 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Jacksonville VH

REFERRING VET

Dr. Lynch

INVOICE

36084

PRESENTING CLINICAL SIGNS

Increased temp 104, painful abdomen, vomited multiple times 3/8 and 2/9/22. Very sick, weak. Was at Animal Emergency Hospital. Treated here for pancreatitis.

Current Medications: IV fluids, Buprenorphine.
Lab Results: 3/9/22 CPL abnormal, Mylase >2500, Lipase 5979.
Radiographs: Inflammation- pancreas area.
Date of Previous IntraPet Ultrasound: No previous.
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 visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

The left kidney has a normal shape and size (4.41 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 (4.67 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/borderline plump 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/borderline plump in size measuring 0.65 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 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.

Liver

The liver is large in size with smooth peripheral margins. The parenchyma is hyperechoic and homogenous in echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The common bile duct appears mildly thickened and dilated at 0.35 cm.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of 0.35 cm 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.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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 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 severe pancreatitis. There is a prominent pancreatic duct measuring 0.42 cm. There is a cystic region in the left limb of the pancreas measuring 1.6 cm that could be consistent with a cyst or early abscess formation.

Free Abdomen

There is a small amount of free abdominal fluid around the pancreas. There is no lymphadenomegaly. The omentum is of increased echogenicity in the cranial abdomen around the pancreas.

ULTRASONOGRAPHIC FINDINGS

- Severely enlarged and hypoechoic, mottled pancreas with surrounding free fluid. Additionally, there is a somewhat cystic appearing region, which could be consistent with a cyst or early abscess. The pancreatic changes are most consistent with severe 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.

- Large, hyperechoic liver - The diffuse hepatic changes are non-specific and can be seen with vacuolar hepatopathy, reactive change, nodular hyperplasia or, less likely, inflammatory/immune-mediated disease, infiltrative neoplasia, or other hepatopathy.

- Moderate gallbladder debris with a thickened, dilated common bile duct – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting. Dilation of the common bile duct could be consistent with a functional obstruction (i.e. primary hepatic disease resulting in hepatocellular swelling) or with an extrahepatic bile duct obstruction (ie. choledocholith, bile duct tumor, pancreatic disease, other).

- Borderline bilateral adrenomegaly – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.

- Free abdominal fluid around the pancreas with hyperechoic mesentery – consistent with focal

peritonitis surrounding the pancreas.

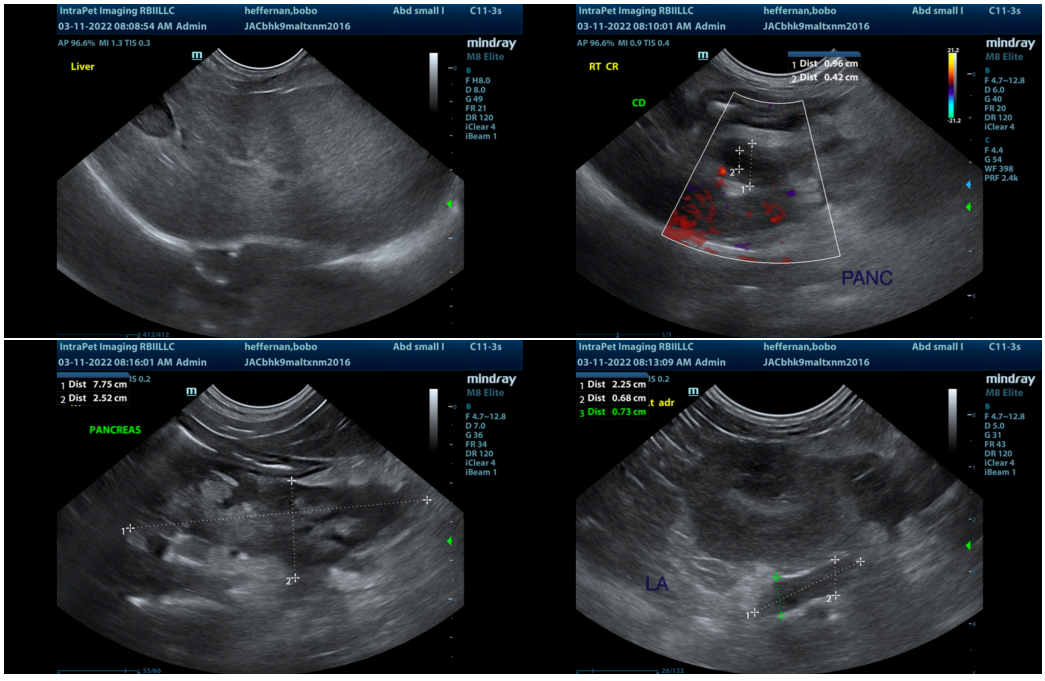
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

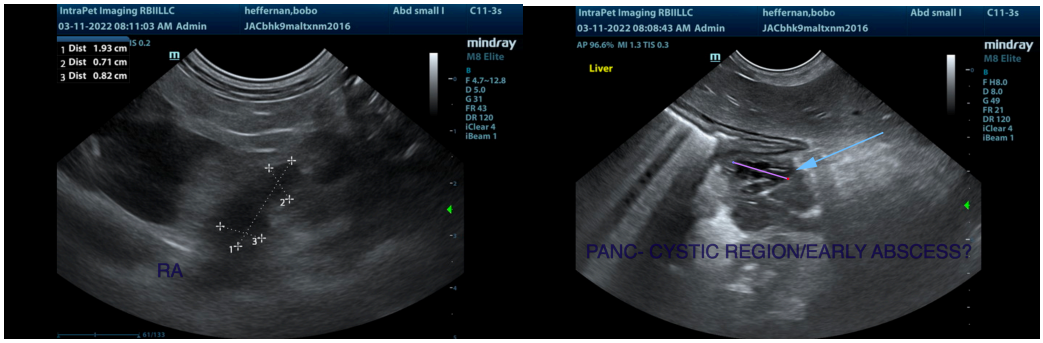
The ultrasound findings are consistent with severe pancreatitis with a small amount of free fluid and surrounding peritonitis. There is a hypoechoic, mildly cystic appearing section in the left limb of the pancreas, which could be a benign cystic lesion, or could be consistent with a developing abscess. This area should be monitored with ultrasound. Recommend aggressive therapy for pancreatitis including IV fluids, pain medications, +/- antibiotics, anti-nausea medications, +/- plasma.

Additionally, the liver is subjectively hyperechoic, and the adrenal glands are borderline enlarged. Recommend continued monitoring, and if these issues persist beyond resolution of pancreatitis, then consider re-evaluation, as this could be consistent with pituitary dependent Cushing's.

Additionally, the bile duct appears dilated and thickened. This could be consistent with a post-hepatic biliary obstruction secondary to the pancreatitis, but the thickening could indicate some degree of cholangiohepatitis, so recommend IV antibiotic therapy +/- Ursodiol. Recommend continued monitoring of the gallbladder and bile duct with ultrasound as well as with blood work.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.





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.

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