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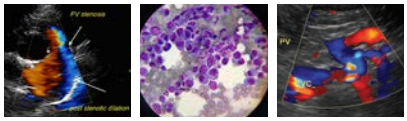

SonoPath
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DATE

12/22/22

PATIENT

Courtney Campbell

SPECIES

Feline

BREED

DLH

SEX

Spayed Female

AGE

12/21/06

WEIGHT

11.9 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

43694

PRESENTING CLINICAL SIGNS

Hx from RDVM No significant medical hx, last seen >1 year ago Last week around wednesday meowing more in the morning and turning nose up at food some bilious v+, anorexia worsening to the point where she wont eat at all now no rx no change in u+ habits scant normal stool in litter box scf b12 cerenia miratax solensia Bw T4-- 7.4, Monocytes 1214 increased, Na/cl slightly los, ALT 472, AST 343, ALKP 35, bili 0.9 My Hx: Owner reports vomiting every other day, now not eating at all even with the TD mirtaz Her for continued care. She is indoor only

Current Medications: maropitant, protonix, buprenex, methimazole, ampiticllin
Lab Results: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not 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 is small and irregular with decreased corticomedullary distinction, measuring 2.37 cm. There is no evidence of focal 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 (4.36 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal 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 0.42 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 0.48 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 (0.92 cm in width), 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 subjectively normal in size, and hypoechoic with smooth peripheral margins. 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 is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile duct are severely dilated and tortuous with a thickened wall and surrounding inflammation. The bile duct measures at

0.65 cm with no obvious stones observed. It can be followed to the duodenal papilla, where it measures 0.55 cm. Dilated pancreatic duct can be seen at this level at 0.43 cm. A distinct large mass effect is not observed, but there is thickened, hypoechoic tissue and possibly mucoid material, consistent with either a small mass effect/thickening and/or mucus plug.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.36cm 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 uniform diameter with minimal fluid distension. Wall thickness is normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measures 0.18 cm. Duodenum wall measures 0.35 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 fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is prominent, mottled, and hypoechoic. Prominent pancreatic duct noted at 0.30 cm. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. There is generalized inflammation in the cranial abdomen, particularly around the bile duct.

ULTRASONOGRAPHIC FINDINGS

- Small, shriveled appearing left kidney – Findings are most consistent with an atrophied/fibrosed kidney.
- Hypoechoic, mottled pancreas with prominent pancreatic duct – This is most consistent with pancreatic inflammation secondary to pancreatic duct obstruction.
- Hypoechoic, heterogeneous liver – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.
- Severely dilated, thickened bile duct with possible obstruction at the duodenal papilla (tissue versus mucus)
- Prominent muscularis layer of the small intestine – The small intestinal wall changes could be consistent with an underlying inflammatory process. These types of changes can sometimes be seen in normal older cats. Correlate with clinical signs.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

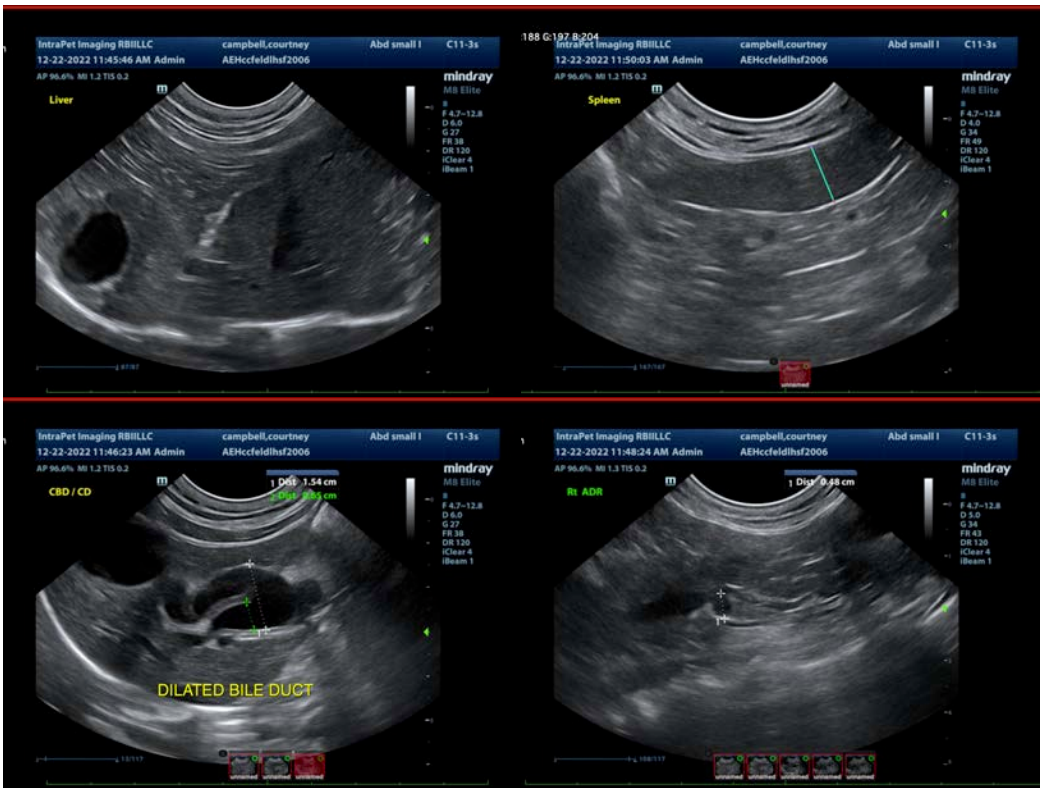
The bile duct is severely dilated and thickened with surrounding hyperechoic inflammation. This can be followed to the level of the duodenal papilla, where a dilated pancreatic duct is also visible. The tissue in this area appears thickened and irregular. This could be consistent with inflammation or infiltrative neoplasia. Additionally, there is some mucoid material, so a plug could be present, either with or without another

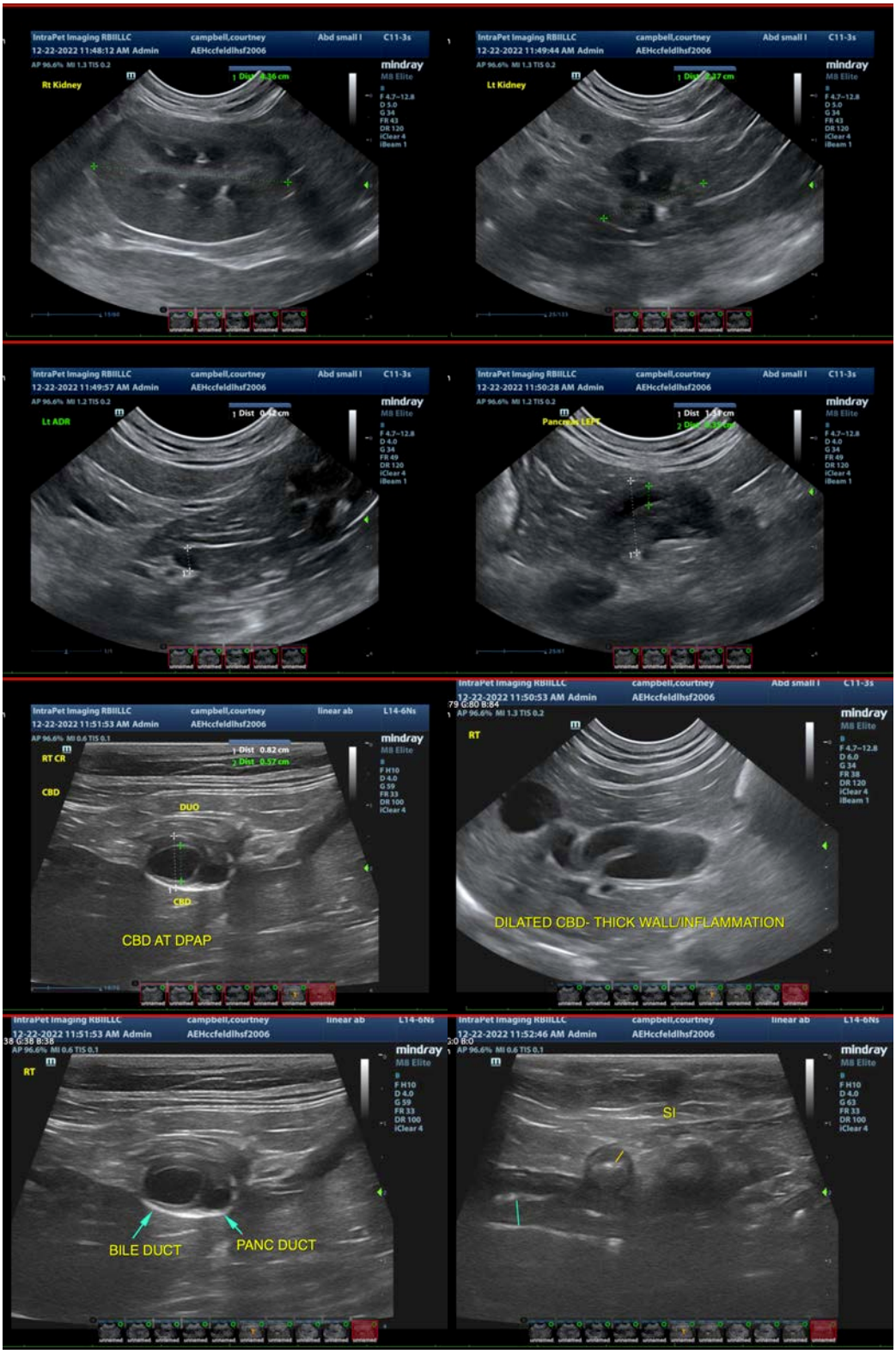
process going on.

The pancreas appears concurrently inflamed, likely secondary to obstruction of the pancreatic duct. Consider treatment for cholecystitis with antibiotics and Ursodiol with close monitoring. Recommend recheck bloodwork and rescanning in 24-48 hours (sooner if patient declines). I would also recommend a fine needle aspirate of the liver, looking for evidence of round cell neoplasia. I would try to avoid steroids, as this could make the diagnosis more difficult to obtain.

If this medical therapy is not successful, then options moving forward would include advanced imaging (contrast CT scan) to see if better resolution can differentiate from a mass lesion versus a mucoid plug, surgical evaluation to determine if an obstruction can be cleared, a cholecystoduodenostomy could be considered and biopsies obtained, or anti-inflammatory doses of steroids in the hopes that this is an inflammatory reaction, but with the knowledge that if this is a neoplastic process, a temporary improvement may be seen with an eventual relapse.

Recommend concurrent treatment for pancreatitis and 3-view thoracic radiographs.




Rt Kidney
Lt Kidney
Lt ADR
RT CR
CBD
DUO
CBD AT DPAP
RT
DILATED CBD- THICK WALL/INFLAMMATION
BILE DUCT
PANC DUCT
SI

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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