

**DATE PRESENTING CLINICAL SIGNS**

8/25/21 History: on/off vomiting and hairballs, chronic. Lost 1.82 lbs. in last 8 months.

PATIENT

Marmalade Hutnich

Current Medications: Cerenia PRN, Purina HA

Lab Results: severely elevated spec fpl (SPEC fPL 41.5 ug/L 0.0 - 3.5 HIGH), elevated UPC 0.4, elevated calcium 11.8.

Radiographs: Not provided by the veterinarian.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

SPECIES

Feline

Sedation: Gabapentin PO

Stat Report: not requested

BREED

DSH

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.

SEX

Spayed Female

The left kidney has a normal shape and size (3.18 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Mild pyelectasia noted at 0.21 cm. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

AGE

7/1/06

WEIGHT

6.4 Pounds

The right kidney has a normal shape and size (3.79 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Mild pyelectasia noted at 0.28 cm. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

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Adrenal Glands

The region of left adrenal (Cranial to left renal artery) is unremarkable but the adrenal is not distinctly visualized. No evidence of a mass effect.

The region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. No evidence of a mass effect.

HOSPITAL NAME

Frederick Road VH

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.

REFERRING VET

Dr. Beyer

Liver

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

INVOICE

24926

The gallbladder lumen is mildly distended. The wall of the gall bladder appears somewhat thickened and hyperechoic, measuring 0.28 cm. The cystic duct is somewhat dilated and tortuous as well, measuring 0.2 cm with a prominent wall measuring approximately 0.1 cm each. This appears to empty into the duodenal papilla without obvious obstruction, but the severely dilated pancreatic duct lies in this region as well. No stones or masses are seen in conjunction with the biliary tract.

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 0.26-0.32 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 large and prominent with a severely dilated, tortuous pancreatic duct measuring up to 1.14 cm. There is a rim of hypoechoic abnormal pancreas around the duct in the cranial portion of the abdomen (left limb). The pancreas almost appears cystic, likely due to the tortuous turns of the dilated pancreatic duct. There appears to be a more solid nodule measuring 0.79 cm in the area of where the pancreatic duct and common bile duct meet. This is also near the area of the duodenal papilla. This nodule is hypoechoic and measured 0.79 cm, consistent with either a lymph node or possibly a pancreatic mass.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is questionable mesenteric lymphadenopathy in the area of the duodenal papilla. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is generally of increased echogenicity in the area of the pancreatic duct.

ULTRASONOGRAPHIC FINDINGS

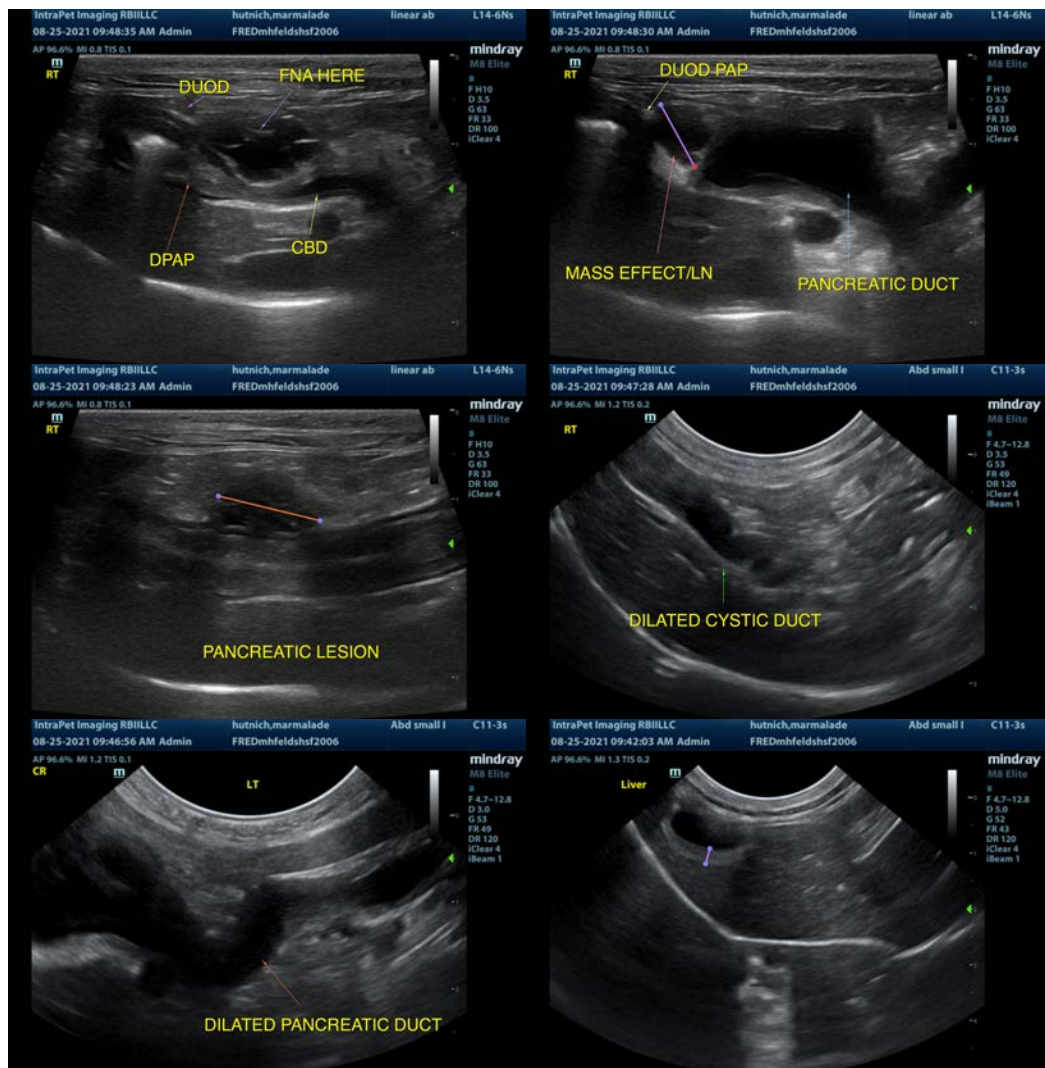
- Severely dilated, tortuous pancreatic duct – suspect obstruction prior to joining the common bile duct. No stones are visualized. There is a possible lymph node or mass observed in this area.
- Thickened gallbladder wall and mildly dilated cystic duct – most consistent with inflammatory change.
- Subjectively thickened small intestine with prominent muscularis layer – The small intestinal wall changes are most consistent with an inflammatory process (i.e., inflammatory bowel disease) with a low possibility of emerging lymphoma.
- Bilaterally decreased corticomedullary distinction and mild pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the left and right kidneys could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The pancreatic duct appears severely dilated. A clear obstruction is not visualized, but there is concern for one possibly at the entry point to the common bile duct. The common bile duct is slightly dilated, but appears to enter the duodenal papilla without obvious obstruction. There is a lymph node or mass effect in this area, and the pancreatic tissue appears abnormal. If possible, consider fine needle aspirate of the nodule located near the pancreatic duct. If this is not possible, consider fine needle aspirate of pancreatic tissue in this area. Alternately, advanced imaging (CT scan) could be considered with possible surgical evaluation/biopsies

depending on imaging. Recommend 3-view thoracic radiographs. Consider starting Ursodiol and continued therapy for pancreatitis. It is also possible that this represents a previous obstruction due to a stone, etc., which has passed, leaving a permanently dilated pancreatic duct. Advanced imaging could be helpful in obtaining more information.

As mentioned in the history, recommend an ionized calcium and PTH level to further evaluate the hypercalcemia.





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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