

**DATE PRESENTING CLINICAL SIGNS**

12/20/22

Was overweight so owner start her on low fat diet food - at the end of the week stopped eating, owner thought just food (started friday) Started feeding her foster dogs food - was drinking excessively Yesterday: eyes had yellow appearance. Back paw has a lick spot - owner concern patient could have ingested chemical form licking her paws Presented to rdvm: - Not eating for 2-3 days - Rads: decreased serosal detail in the cranial abdomen, fecal material in the colon, mild gassy changes - Bw: Wbc 17.75, Neu 14.32, Baso 0.18, Bun 3, ALT and ALP did not read, GGT 65, Tbil 14.7, Chol 507, Lip 5187 - UTD on lepto vaccine - rdvm did a quick US but did not see a blockage

PATIENT

Annie Lutz

SPECIES

Canine

Current Medications: Cerenia, Denamarin, Ondansetron, Gabapentin.
Date of Previous IntraPet Ultrasound: No previous.

BREED

Labrador X

Sedation: IV dex-dorm-torb.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Spayed Female

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.

AGE

12/19/13

The left kidney has a normal shape and size (6.4 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.

WEIGHT

62.6 Pounds

The right kidney has a normal shape and size (5.95 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. There is an irregular hypoechoic nodule visualized associated with the cranial pole of the right kidney measuring 1.04 cm x 0.87 cm.

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

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.

HOSPITAL NAME

Animal Emergency
Hospital

The right adrenal gland is normal in size measuring 0.59 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.

REFERRING VET

Dr. Nacke-Horney

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.

INVOICE

43566

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is mildly 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 ducts are normal/not visible.

Gastrointestinal

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.

Many of the visualized areas of jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. The mid jejunum appears normal, measuring between 0.2-0.47 cm. The proximal duodenum appears somewhat thickened and irregular. There is a more normal region with normal wall layering measuring at 0.54 cm. As it is visualized proximally in the region of the pancreatic inflammation, wall thickness increases and the detail of wall layering greatly diminishes. Wall thickness in this region measures 1.11 cm. There is asymmetrical wall thickening creating somewhat of a mass effect, measuring 2.69 cm x 3.05 cm. The pancreas is inflamed in this region and somewhat nodular, making it difficult to distinguish between a duodenal mass, pancreatic mass, or inflamed pancreas adhering to the proximal duodenum.

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, irregular/almost nodular, and hypoechoic to surrounding mesentery. This creates somewhat of a mass lesion that appears to coalesce with/adhere to the abnormal proximal duodenum. There is evidence of regional mesenteric inflammation. Consistent with moderate pancreatic inflammation +/- a mass effect.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There are enlarged lymph nodes in the region of the right cranial abdomen, measuring 0.78 cm and 1.3 cm in diameter. There is significant hyperechoic mesentery around the proximal duodenum and pancreas.

ULTRASONOGRAPHIC FINDINGS

- Inflamed/irregular/nodular pancreas in the right cranial abdomen, which is intimately associated with abnormal thickened, hypoechoic proximal duodenum – Findings are concerning for either severe pancreatitis with focal pancreatitis that is adhered to the proximal duodenum, causing severe inflammatory changes, or with a primary mass effect affecting either the duodenum or pancreas, or both.
- Mildly heterogeneous 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.
- Hypoechoic, irregular nodule in the cranial pole of the right kidney – This could represent a benign or neoplastic nodule, granuloma, etc.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

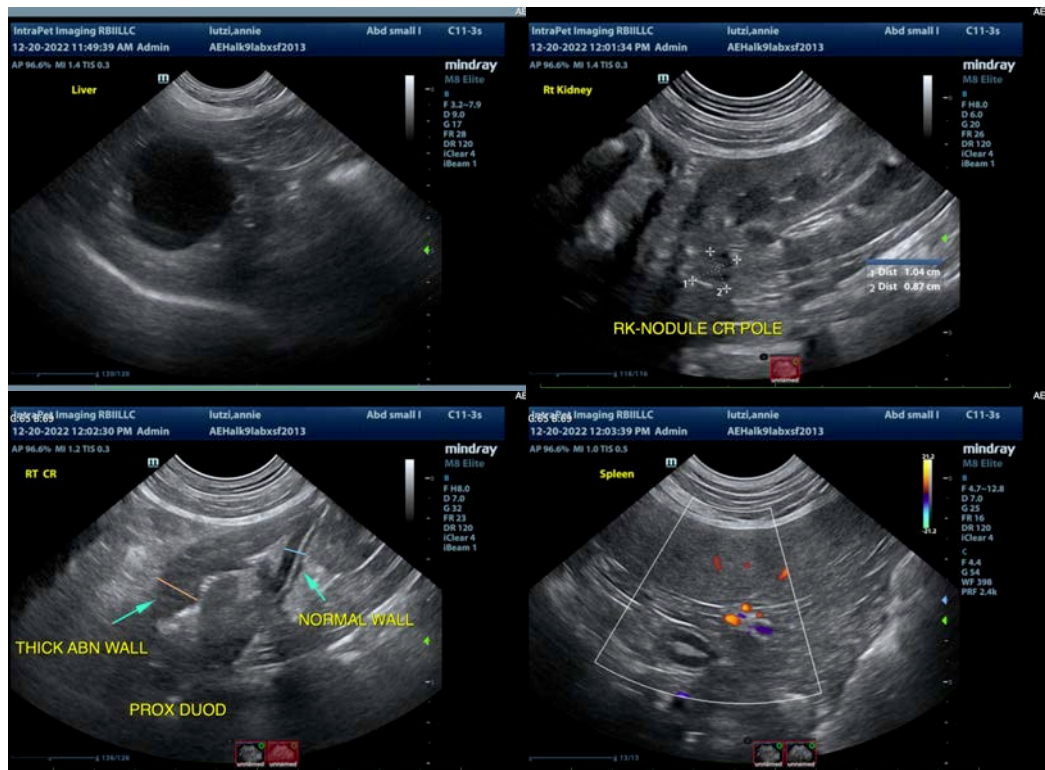
There is an area in the right cranial abdomen that appears severely inflamed and involves both an irregular, hypoechoic nodular pancreas and a focal thickened region of duodenum with decreased detail of wall

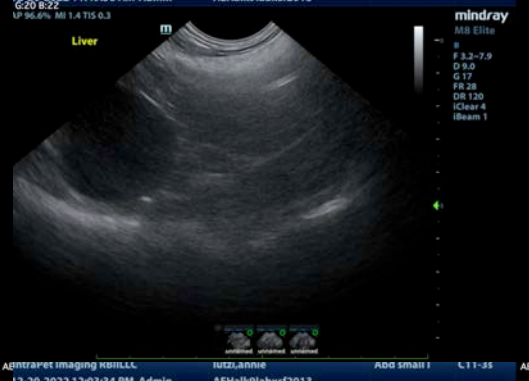
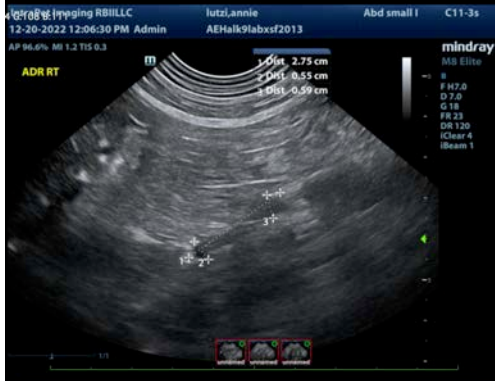
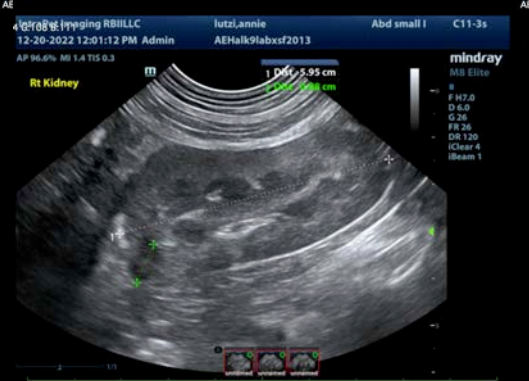
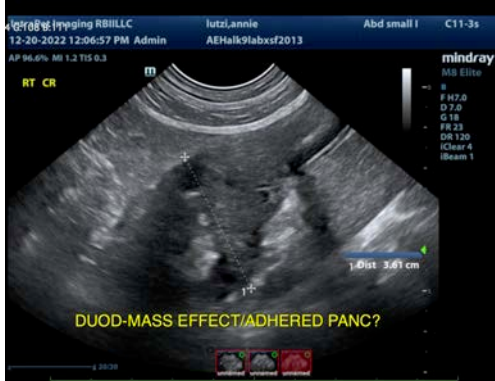
layering. This could represent severe pancreatitis and subsequent severe enteritis, but given the nodule in the kidney, there is also concern for a neoplastic process, which could be initiated either at the level of the duodenum or the pancreas.

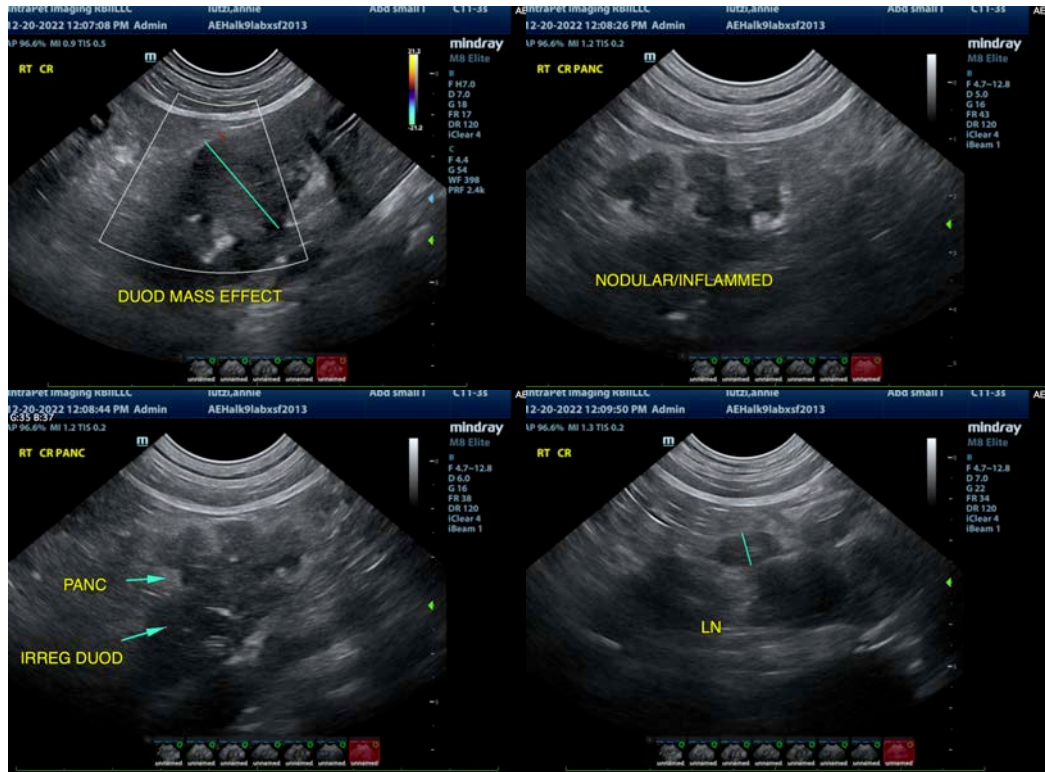
Consider a fine needle aspirate of the mass lesion/thickening of the duodenum/adhered pancreas, looking for evidence of neoplastic cells, inflammation, etc. Recommend symptomatic treatment for severe pancreatitis, and if coagulation parameters are normal, recommend a fine needle aspirate of the liver, as there is no obvious evidence of a post-hepatic biliary obstruction, but given the area of the diseased tissue, this would still need to be considered.

Recommend aggressive medical therapy and repeat ultrasound or even contrast CT scan in approximately 48 hours (sooner if not doing well), and while awaiting cytology results to better try and determine a course of action. If a diagnosis cannot be obtained, surgical biopsies may need to be considered.

Recommend three view thoracic radiographs to evaluate for possible 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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
kathleen.sennello@sonopath.com