

**DATE PRESENTING CLINICAL SIGNS**

1/18/23

Pt presented for recheck. pt seemed like she was improving, was e/d well up until Sunday evening (1/15), then pt stopped eating. pt has been drinking normally, but urinating more frequently. pt has not vomited, but o did give 3 cerenia today after pt had a "runny" stool this morning. activity level is normal, no c/s.

PATIENT

Penny Johnson

Current Medications: Cerenia 60mg, Deramax
Lab Results: cbc- wnl. chem 17; elevated alt, alpk, lipase, amylase. lytes- wnl. cPL- abnormal
Radiographs: no obvious fb or neoplasia; mild spondylosis T13-L1

SPECIES

Canine

Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

BREED

Goldendoodle

Imaging Performed By: Rachel Brillhart, RDMS.

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

1/10/13

The left kidney has a normal shape and size (6.98 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

76.8 Pounds

The right kidney has a normal shape and size (7.2 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.

INTERPRETED BY

Kathleen Sennello DVM,
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Adrenal Glands

The left adrenal gland is normal to borderline large in size measuring 0.91 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

Eldersburg Vet
Hospital

The right adrenal gland is normal/borderline large in size measuring 0.87 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. James

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

44300

Liver

The liver is large in size, and normal in echogenicity 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. There is a hypoechoic nodule visualized measuring 3.38 cm x 2.17 cm. Another is visualized measuring 1.99 cm x 1.61 cm.

The gallbladder lumen is significantly distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The common bile duct appears somewhat prominent and mildly dilated. Distally it is visualized measuring 0.40 cm with no obvious obstruction noted.

Gastrointestinal

The stomach is moderately fluid distended. 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.

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. Duodenum wall measures 0.43 cm. Jejunum wall measures 0.37 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 hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with moderate pancreatitis. Pancreatic duct measures at 0.27 cm.

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. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Large, hypoechoic pancreas with surrounding hyperechoic mesentery (right side more severely affected than left) – 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.
- Large, heterogeneous liver with two hypoechoic nodules – 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 appearance of the nodules trend towards a more benign etiology. Recommend continued monitoring.
- Distended gallbladder with mildly dilated bile duct – This could be a partial obstruction due to the pancreatitis. Continued monitoring is warranted.
- Moderate fluid distention of the stomach – This is most consistent with recent ingestion of water or possible delayed gastric emptying/ileus secondary to the pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

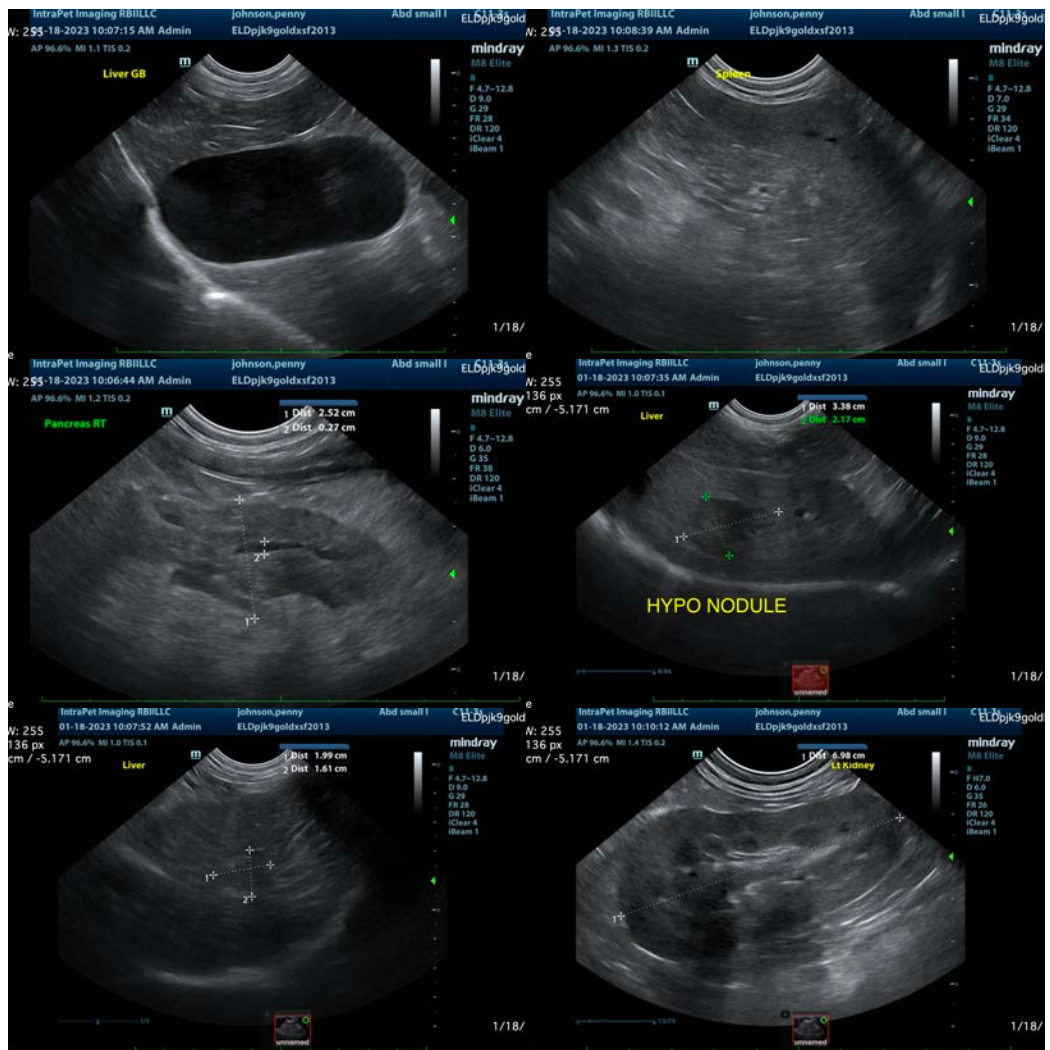
The pancreas is large, prominent, and surrounded by hyperechoic mesentery. These findings are most consistent with moderate pancreatitis. Recommend aggressive therapy with fluids, antiemetics, pain

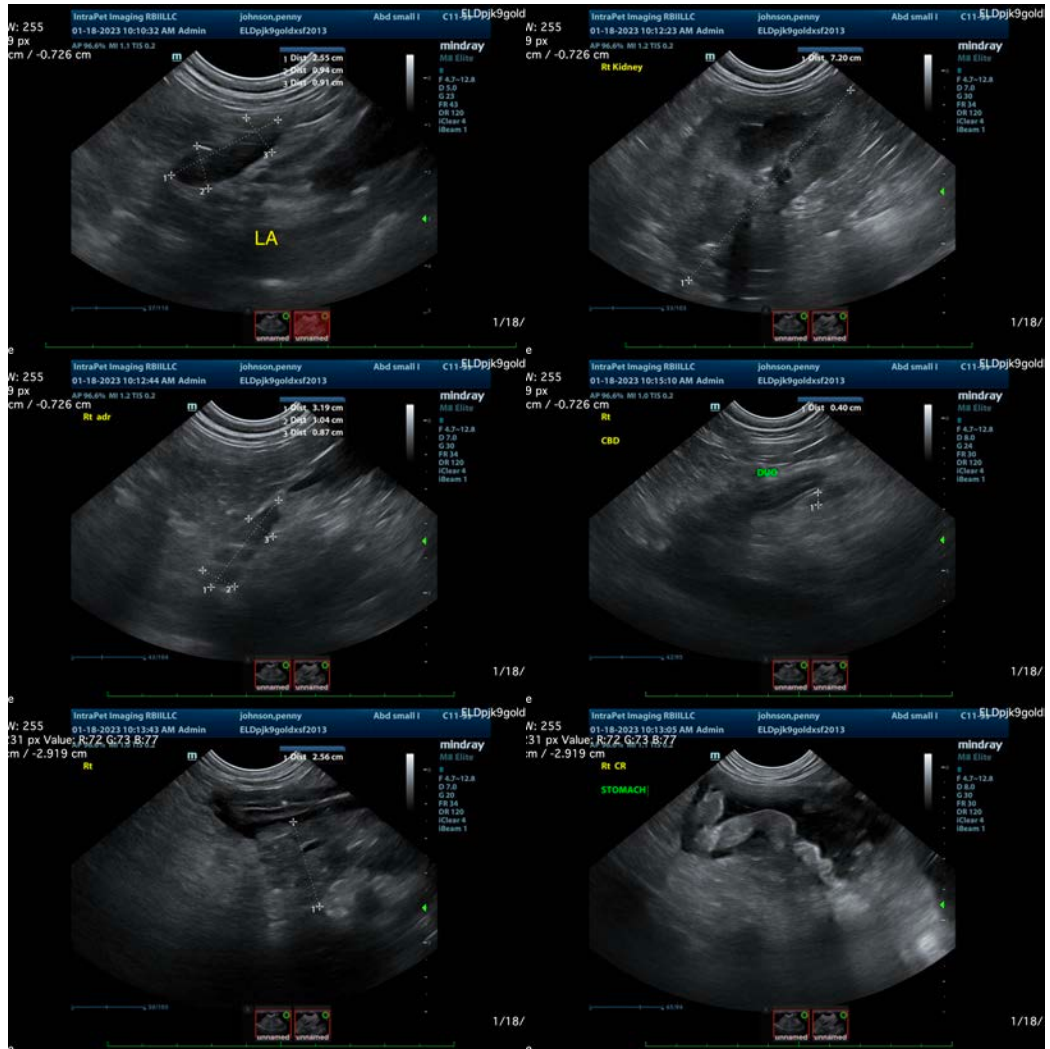
medications, etc., and continued monitoring of clinical status, lab work, etc. I suspect most of the abnormalities noted are secondary to the pancreatitis, and hopefully will improve once this primary issue has improved.

There are two hypochoic nodules visualized within the liver. Continued monitoring of these lesions is warranted and/or a fine needle aspirate if a window can be obtained.

Both adrenals appear somewhat prominent. The significance of this is unclear. Once the pancreatic inflammation has resolved and the patient is back to normal, you could consider reevaluation.

If this patient is not responding to medical therapy as you would expect, recommend reimaging, looking for development of an abscess, biliary obstruction, etc.





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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