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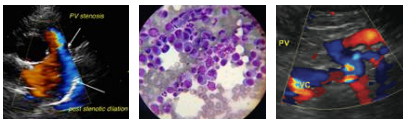

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DATE
9/28/21

PATIENT
Shelly Dickson

SPECIES
Canine

BREED
Boston Terrier

SEX
Spayed Female

AGE
2008

WEIGHT
27 lbs

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

HOSPITAL NAME
Animal Emergency Hospital

REFERRING VET
Dr. Saubier

INVOICE
92043

PRESENTING CLINICAL SIGNS

Referral, Pancreatitis, Hypothyroidism, Epilepsy, Pacemaker.
History: Date: 09-27-2021 Notes: Referral for pancreatitis. Seen at rDVM Saturday - BW -significant elevated ALT (has history of elevation in the past). Abnormal cPL - started with outpatient therapy - SQ fluids, Cerenia, Amoxicillin, Metronidazole, and bland diet. Today not eating
and owner has been unable to give medications. History of seizures, hypothyroid, and has a pacemaker (managed by CVCA).
Current Medications: Pantoprazole (Protonix) 40mg/vial Injection (Per mL), Phenobarbital 32.4 mg 1 tab PO BID, Zonisamide 100 mg PO BID, Levothyroxine 0.2 mg 1 tab PO BID, Enalapril 5 mg - gets 1.5 tabs am, 1 tab pm, Clopidogrel 75 mg - 1/2 tablet PO SID, Tramadol 50 mg - 1 tablet every 8-12 as needed for pain.
Lab Results: Attached separately within requisition. Significant elevated ALT (has history of elevation in the past). Abnormal cPL.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Sedation not required for scan.
Stat Report: STAT report not requested by the veterinarian.

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 has a normal shape and size (5.58 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. Occasional cortical cysts were noted. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.91 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. Rare cortical cysts were noted. 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 0.77 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 0.79 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 subjectively normal in size, and 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 0.9 x 0.69 cm hypoechoic lesion visualized. Additionally, there are numerous hyperechoic nodules. One nodule measured 1.06 x 1.02 cm. The gallbladder lumen is moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. The gallbladder wall measures 0.38 cm. There is a moderate amount of non-organized echogenic debris. The common bile duct is mildly dilated and measured 0.52 cm at the duodenal papilla.

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.

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 (0.5 cm) and the jejunum measured as normal (0.38 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 and hypoechoic as compared to the surrounding isoechoic mesentery. 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. The omentum is of normal uniform echogenicity.

Thorax

There is no pericardial effusion.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Heterogenous liver with ill-defined, hyperechoic nodules and a hypoechoic lesion. 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.

- Prominent, hypoechoic pancreas. The pancreatic changes are most consistent with moderate pancreatitis/pancreatic infiltration. I recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider FNA if not improving.

- Decreased corticomedullary distinction in both kidneys. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.

- Large gallbladder sludge. There is a large amount of echogenic debris within the gallbladder. It is large in size with early wall thickening and a slightly dilated common bile duct. There is no surrounding inflammation and no organization of the debris. The findings are consistent with early gallbladder disease.

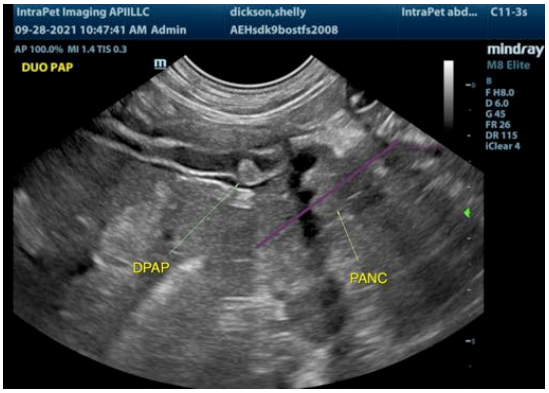
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

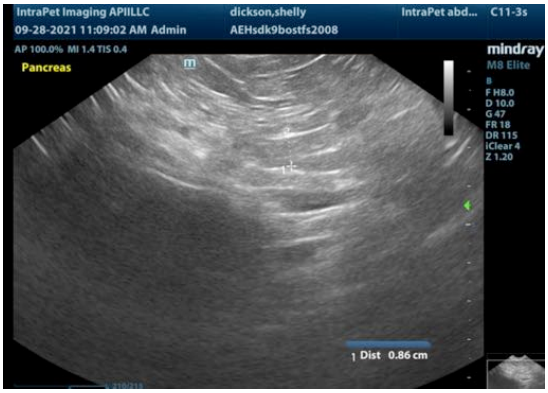
The liver is irregular with some hyperechoic nodules. This is less concerning for a neoplastic process, but a FNA can be considered. I suspect these changes are associated with Phenobarbital use and hepatopathy. I recommend liver function test in discussion with a veterinarian neurologist about trying to transition off Phenobarbital to an alternative anti-seizure medication if possible. I recommend Phenobarbital levels.

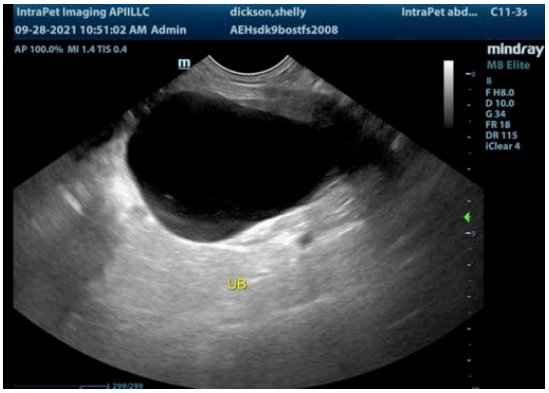
Additionally the gallbladder has a large amount of sludge, it is dilated and the wall shows some early thickening. Consider starting Ursodiol and close monitoring (possible antibiotics) and Denamarin. This gallbladder may need to be removed in the future, so monitor it closely.

Additionally the pancreas does appear somewhat prominent and hyperechoic particularly at the duodenal papilla, which could be causing a mild, partial obstruction of the common bile duct. I recommend to continue therapy for pancreatitis. To reiterate:

- Recommend liver function test and Phenobarbital levels.
- +/- FNA of the liver.
- Consult with veterinary neurologist regarding transitioning off of Phenobarbital to a different anti-seizure medication due to the hepatopathy present.
- Recommend continued therapy for pancreatitis (which may also be exacerbated by Phenobarbital).
- Recommend starting Ursodiol with close monitoring of the gallbladder.



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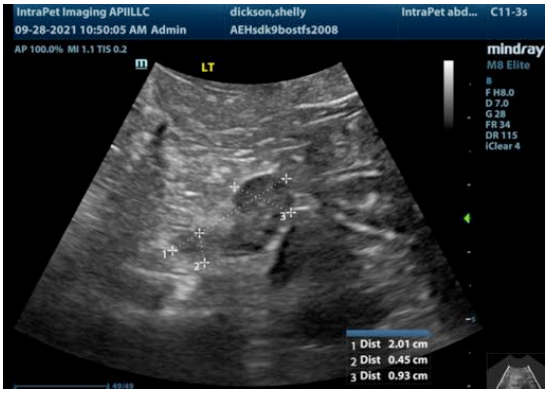
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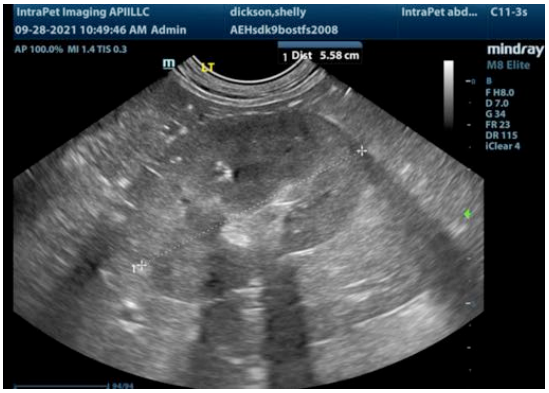
3 Dist 0.93 cm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mindray
M8 Elite
LT
1 Dist 5.58 cm


IntraPet Imaging APIILLC
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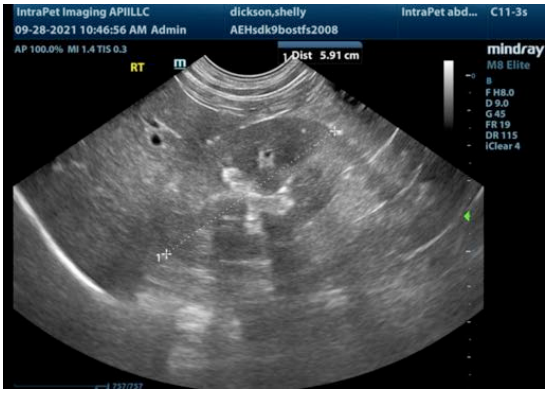
2 Dist 0.91 cm
3 Dist 0.95 cm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1 Dist 5.91 cm


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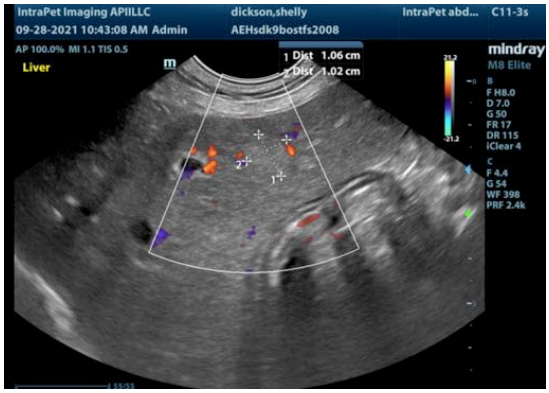

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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