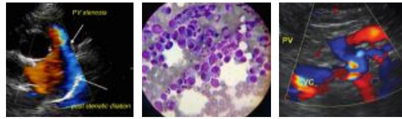
IMAGING PERFORMED BY

IntraPet.com



SonoPath

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DATE
5/13/22

PATIENT
Diana Prowell

SPECIES
Feline

BREED
DSH

SEX
Spayed Female

AGE
5/31/15

WEIGHT
12 Pounds

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

HOSPITAL NAME
Timonium AH

REFERRING VET
Dr. Montessi

INVOICE
15160

PRESENTING CLINICAL SIGNS

History: Elevated enzymes since starting enalapril and clopidogrel. Hx of hypertrophic obstructive cardiomyopathy-managed/monitored via CVCA

Current Medications: Atenolol 25mg 1/2T SID since Jan 2017, Clopidogrel 75mg 1/4T SID started 4/13/22, Enalapril 2.5mg 1/2T SID x 4 days then 1T SID started 4/13/22- Stopped 5/2/22.
Lab Results: ALT >2000 on 5/7, 691 on 5/5, WNL in Jan 2020. AST 966 on 5/7, 313 on 5/5, WNL in Jan 2020.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

Imaging Performed By: Andi Parkinson, RDMS.

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 2.0 cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney has a normal shape and size (3.46 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of 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 (2.92 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

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.

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 homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed. The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are 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 <0.36cm 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. The jejunum measured X 0.26 cm, 0.27 cm in diameter. 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/region of the pancreas) is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

There is no free fluid. There are visible mesenteric lymph nodes observed, measuring 0.26 cm and 0.27 cm. The omentum is of normal echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Mildly prominent muscularis layer in the small intestine. The small intestinal wall changes are most consistent with an inflammatory process (i.e., inflammatory bowel disease) with a low possibility of emerging lymphoma. This can be a normal finding in some older cats.

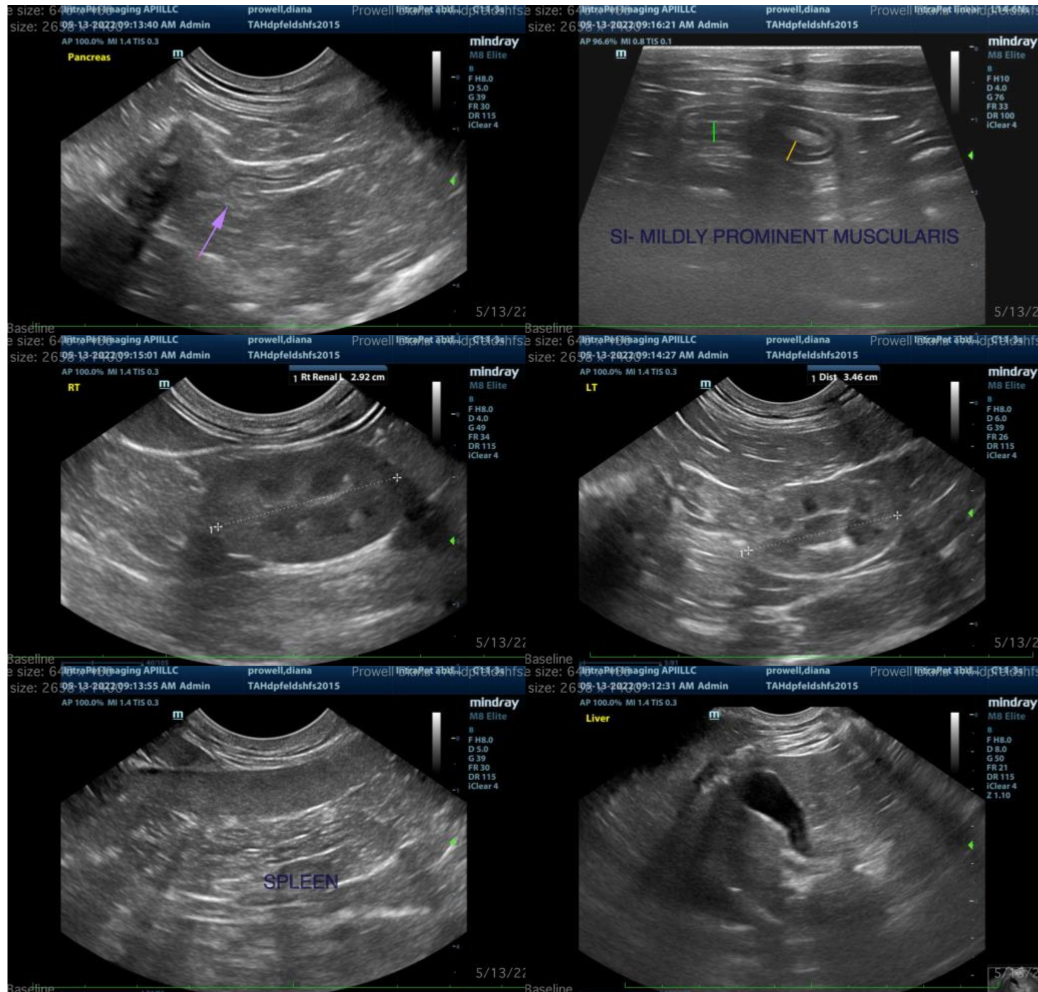
- Visible mesenteric lymph nodes. This is likely normal for this individual.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Today's scan is largely normal. No focal lesions are visualized associated with the liver or gallbladder. Consider possible systemic causes for an elevation in ALT, such as hyperthyroidism, toxicity, etc. If these conditions seem unlikely, then a primary hepatopathy (infectious, inflammatory, lipidosis, neoplasia) is suspected.

- Consider close evaluation of history for possible toxic changes examine medications, diet, dietary indiscretion etc.
- Recommend thyroid evaluation (if not already done)
- If not already done, consider pre and post prandial bile acids to evaluate liver function
- Consider fine needle aspirate if round cell neoplasia is on your differential list (25 g needle, normal coags)
- If cytology is not helpful and there is no response to therapy, consider liver biopsy with samples obtained for histopathology and culture.
- If triaditis is suspected consider therapy for cholangiohepatitis (fluids, antibiotics, +/- ursodiol,+/- steroids), testing for pancreatitis and evaluation for IBD (GI panel to Texas A&M GI lab)
- The history reports an elevation in liver enzymes after starting cardiac medications. It may be worthwhile to reach out to the cardiologist and try to assess the likelihood that any of these

medications are causing an ALT elevation. If so, if alternative medications are possible, or even a temporary discontinuation to see if liver enzymes normalize, if that is safe for the current cardiac condition. I might consider pursuing these questions prior to any invasive testing (fine needle aspirate, etc.), but I would consider evaluating a liver function test to try and determine the level of liver disease present.



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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