**DATE**

4/8/22

PRESENTING CLINICAL SIGNS

History: Presented to ER on 4/2/22 for lethargy and inappetence. BW showed BF of 222, TP 7.4, rest unremarkable was tx with SQF, Cerenia, metoclopramide. AXR showed evidence/ or concern for delayed gastric emptying so AUS was recommended.

PATIENT

Sydney Cogar

Current Medications: None listed.

Radiographs: Stomach was dilated. Gas area in small intestine vs cecum.

SPECIES

Feline

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

BREED

DSH

Imaging Performed By: Rachel Brillhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Neutered Male

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

6/1/10

The left kidney has a normal shape and size (4.3 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. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

17.5 Pounds

The right kidney has a normal shape and size (4.72 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. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

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

Adrenal Glands

The left adrenal gland is normal in size measuring 0.38 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

Timonium AH

The right adrenal gland is normal in size measuring 0.48 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. Brand

Spleen

The spleen is subjectively large in size and hypoechoic, measuring 1.1 cm in width at the level of the hilus.

INVOICE

14688

Liver

The liver is subjectively large in size and normal in echogenicity with smooth peripheral margins. The parenchyma is hyperechoic and heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a 0.98 cm hyperechoic nodule visualized within the parenchyma on the left side.

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 0.28 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

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

Primary Findings

- Large heterogeneous hyperechoic liver. Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy. There is a hyperechoic focal nodule visualized within the parenchyma of the liver. The appearance of this nodule trends toward the more benign process, but an underlying neoplastic etiology cannot be excluded as a possibility.
- Borderline large spleen with rounded margins. This could be consistent with congestion, infiltrative disease or with fatty infiltration, as this is a very large cat.
- Prominent muscularis layer to 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

Secondary Findings

- Decreased corticomedullary distinction in both kidneys. The bilateral renal findings are consistent with age-related change.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No focal mass lesions are visualized within the abdomen. The liver is large, bright and heterogeneous. This is a very large cat, so some of this could be fatty infiltration, but there is concern for a possible primary hepatopathy. Correlate with blood work findings. If liver enzymes are elevated, consider a liver function test and fine needle aspirate of the liver. There is a focal hyperechoic lesion visualized within the hepatic parenchyma, this does not appear expansile and could be a benign lesion, but underlying neoplastic changes are possible. Consider a fine needle aspirate of this lesion.

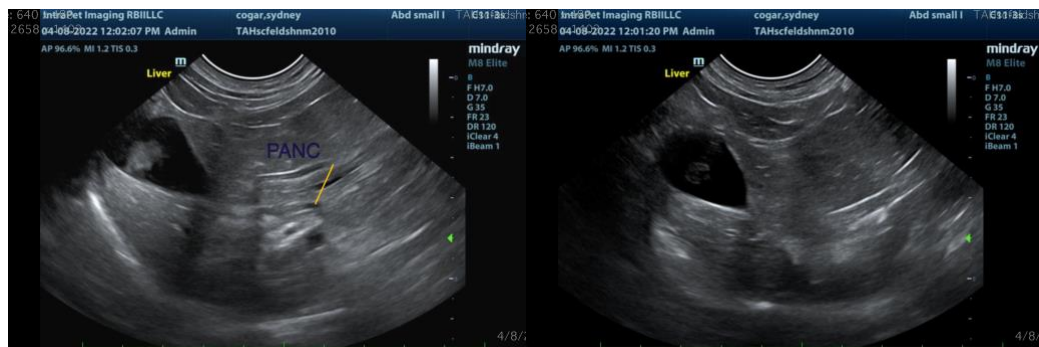
The muscularis layer is prominent in this patient, which could be an indicator of underlying gastrointestinal disease. Possible differentials would include dietary intolerance, food allergy, chronic pancreatitis, IBD or less likely intestinal neoplasia.

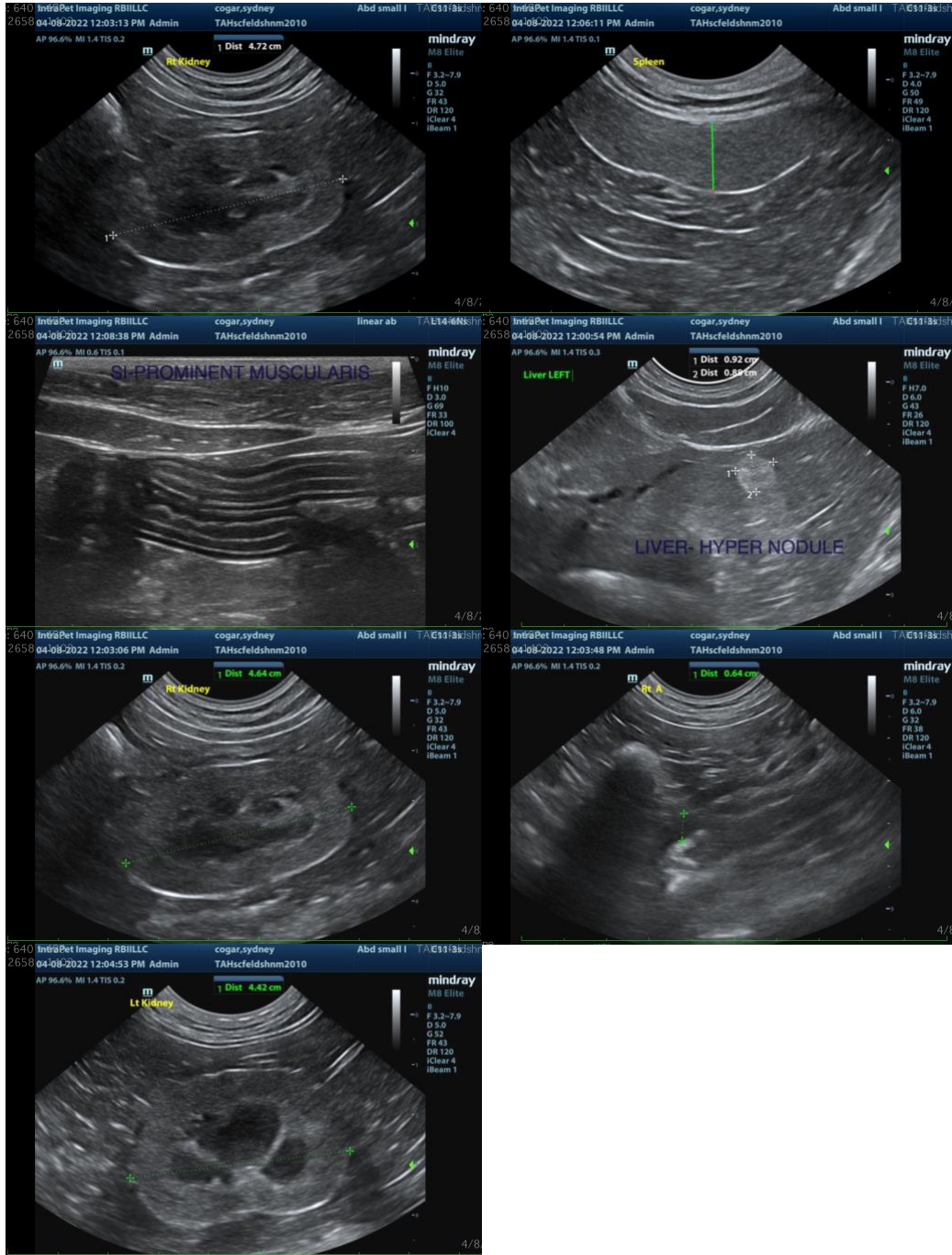
- Consider a novel protein/hydrolyzed protein prescription diet.
- Consider a GI panel (to Texas A & M) for a qualitative fPLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestine.
- If there is no response to these therapies, and the appetite does not improve, then consider the possibility of obtaining GI biopsies.

The spleen appears large and rounded. This could be within normal limits for this large cat. If there is concern for underlying infiltrative disease, you could consider a fine needle aspirate.

There is a possibility that this could be a borderline diabetic. Consider fructosamine levels and close monitoring of at home glucose levels. If the total protein is elevated, consider evaluation of the globulins. If there is an evaluation of the globulin, you could consider a protein electrophoresis for further evaluation.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.





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.

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