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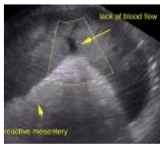
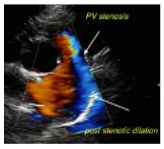
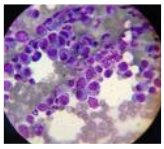
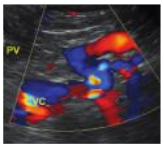

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Otis McKinnon

SPECIES

Feline

BREED

Neutered Male

SEX

Neutered Male

AGE

13 years

WEIGHT

8.6 lbs

INTERPRETED BY

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

IMAGING PERFORMED BY

Jo Goodman

HOSPITAL NAME

Evandale-Blue Ash PH

REFERRING VET

Dr. Jo Goodman

INVOICE

10716

DATE

4/7/22

PRESENTING CLINICAL SIGNS

History: Prev hx of hyperthyroidism that has been controlled with felimazole 2.5mg in AM and 5mg in PM. Prev hx of obesity that has been controlled with HSD Metabolic food. Presented 3/7/22 for not eating, more obvious weight loss that was not intended, and lethargy. Owners were out of town prior to that and there was an ice storm so the pet sitter was unable to get to him for a few days and he did not receive his felimazole. When owners returned it seemed like he had lost weight, his gums were icteric, and he was not interested in his normal food. Was still interested in the small amount of tuna he gets with his felimazole. Seemed like he had slowed down a bit as well. Performed CBC/Chem/Lytes/UA in house and showed elevated liver and kidney values. Came back the next day for 2 days of IVF and force feeding with recovery and a/d. Owner administering 500mg taurine BID and 500mg L. carnitine SID. Decreased felimazole to 2.5mg BID d/t weight loss and concern of over supplementing. Patient showed mild improvement with eating but never returned to 100%. Rechecked Chem on 3/9 and showed kidney value improvement and very mild liver enzyme improvement. Patient still had been eating okay and acting more self at that point. Rechecked Chem on 3/16 and kidney values returned to normal, liver enzymes elevated from 3/9. Rechecked CBC/Chem/T4 on 3/23 and liver enzymes remained elevated but decreased from 3/16, T4 was low and kidney values had crept up. Reduced felimazole to 2.5mg SID and encouraged owner to offer whatever food the patient wants to eat since his eating was still not 100%. Rechecked CBC/Chem on 3/29 and liver values remained the same, kidney values improved but now showed decreased RBC. Patient also started losing weight again. Continues to be vocal about wanting food but then turns nose up at what owner offers him, still getting taurine and L. carnitine supplements. Today owner noted he seems more quiet and less interested in the tuna he gets with his felimazole.

Abnormal PE/Chem/CBC/UA Results: Weight: 9/22/21 - 13.4lbs 3/7/22 - 9.3lbs 3/8/22 - 9.6lbs 3/9/22 - 9.7lbs 3/16/22 - 9.3lbs 3/23/22 - 9.5lbs 3/29/22 - 9.1lbs 4/7/22 - 8.6 bloodwork attached

Most recent blood work results reveal ALT of 360. ALP of 257. GGT 15. Total bili 3.6.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. A small amount of echogenic debris is suspended within the lumen. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The left kidney is normal size (3.98 cm in length); normal shape and smooth peripheral contours. The cortex is mildly thickened and hyperechoic. There is mild to moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney is normal size (4.00 cm in length); normal shape and smooth peripheral contours. The cortex is mildly thickened and hyperechoic. There is mild to moderate loss of corticomedullary distinction. A 0.51 cm cortical cyst is observed at the craniolateral aspect. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal size (0.40 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal size (0.37 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

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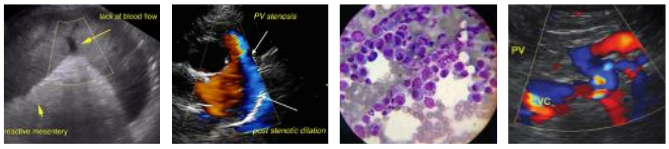

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Spleen

The spleen is subjectively normal in width (0.66 cm in width at the level of the hilus) with an elongated/folded contour and rounding cranial pole. The parenchyma is slightly mottled in appearance. No distinct focal lesions are observed. Splenic vasculature appears normal with no evidence of thrombosis.

Liver

The liver is subjectively normal in size with slightly irregular peripheral contours. The parenchyma is hypoechoic relative to the spleen, subtly mottled and heterogenous in appearance. An approximately 1.25 cm irregular cystic area is observed in the region of the right medial lobe. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1: 1.

The gall bladder is moderately distended. The wall is thickened (up to 0.23 cm), hyperechoic and irregular. Luminal contents are mostly anechoic. The cystic and common bile ducts are dilated (up to 0.56 cm) with mild wall thickening. There is no obvious evidence of an intraluminal obstruction. The duodenal papilla is normal in size (0.41 cm in width).

Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. There is disruption in the normal 1:3 muscularis: mucosal ratio in some segments. Discreet masses are not identified. The ileocecal colic junction and colonic wall are normal. No obstructive disease is noted.

Pancreas

The pancreas is diffusely prominent in size, particularly the left limb. The parenchyma is hypoechoic relative to surrounding omental fat. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated.

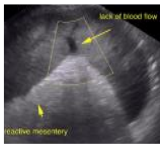
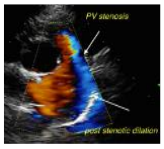
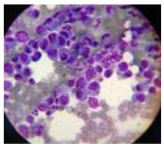
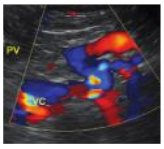
Free Abdomen

The mesentery in the cranial abdomen, surrounding liver and gall bladder, is hypoechoic. There is no obvious evidence of free fluid. A few prominent mesenteric lymph nodes are visualized, the largest measuring 0.87 cm in length.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The gall bladder and cystic/common bile duct changes are most consistent with cholecystitis and cholangitis respectively. There is no overt evidence of an intraluminal common bile duct obstruction.
- The hepatic parenchymal changes are nonspecific and could be associated with an inflammatory hepatopathy (i.e., bacterial cholangiohepatitis, lymphoplasmacytic hepatitis), infiltrative neoplasia (i.e., lymphoma), microscopic hepatic lipidosis, other.
- The pancreatic changes are consistent with chronic +/- active pancreatitis.
- Cranial peritonitis is present, likely secondary to hepatobiliary and/or pancreatic pathology.
- The small intestinal wall changes are suggestive of inflammatory bowel disease. There is some potential for emerging lymphoma. However, neoplasia is considered unlikely at this time.

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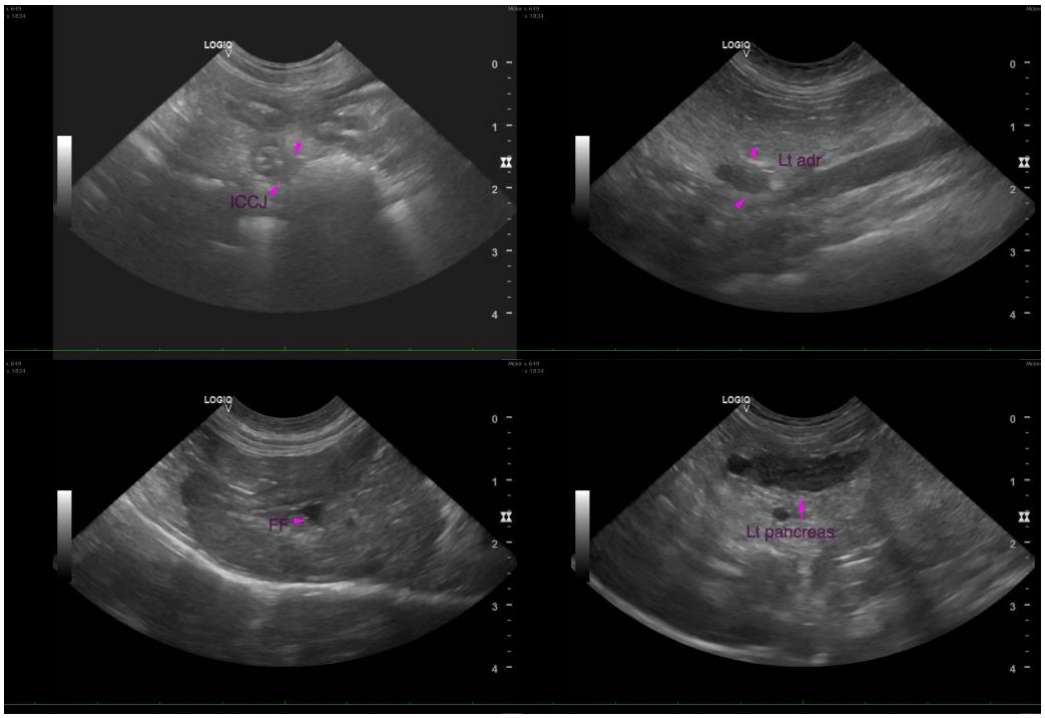
**Given the sonographic changes, “triaditis” is a consideration for this patient.

Secondary Findings

- The lymph node changes are most consistent with reactive lymphadenitis or lymphoid hyperplasia.
- The splenic parenchyma changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis or splenitis with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).
- Bilateral chronic, age-related renal changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- To get a definitive diagnosis, surgical liver biopsies as well as aerobic and anaerobic bile cultures are recommended.
- If a more conservative approach is desired, empirical treatment for cholecystitis/cholangitis/cholangiohepatitis/pancreatitis can be considered, including broad-spectrum antibiotics (i.e., amoxycillin-clavulanic acid +/- metronidazole, Denamarin), gastric protectants, and fluid therapy, as needed. If the liver values do not improve within 5-7 days of initiating therapy, antibiotics should be discontinued, and hepatic tissue sampling revisited.
- Also consider a GI panel including serum cobalamin, folate, TLI and PLI as well as three-view thoracic radiographs to asses cardiopulmonary status.
- Given the sonographic changes, also consider Toxoplasmosis testing (i.e., IgM and IgG).



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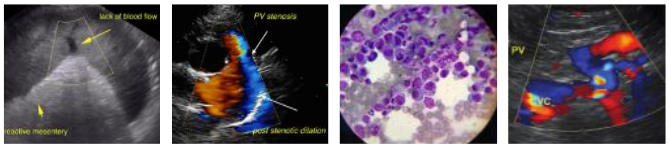

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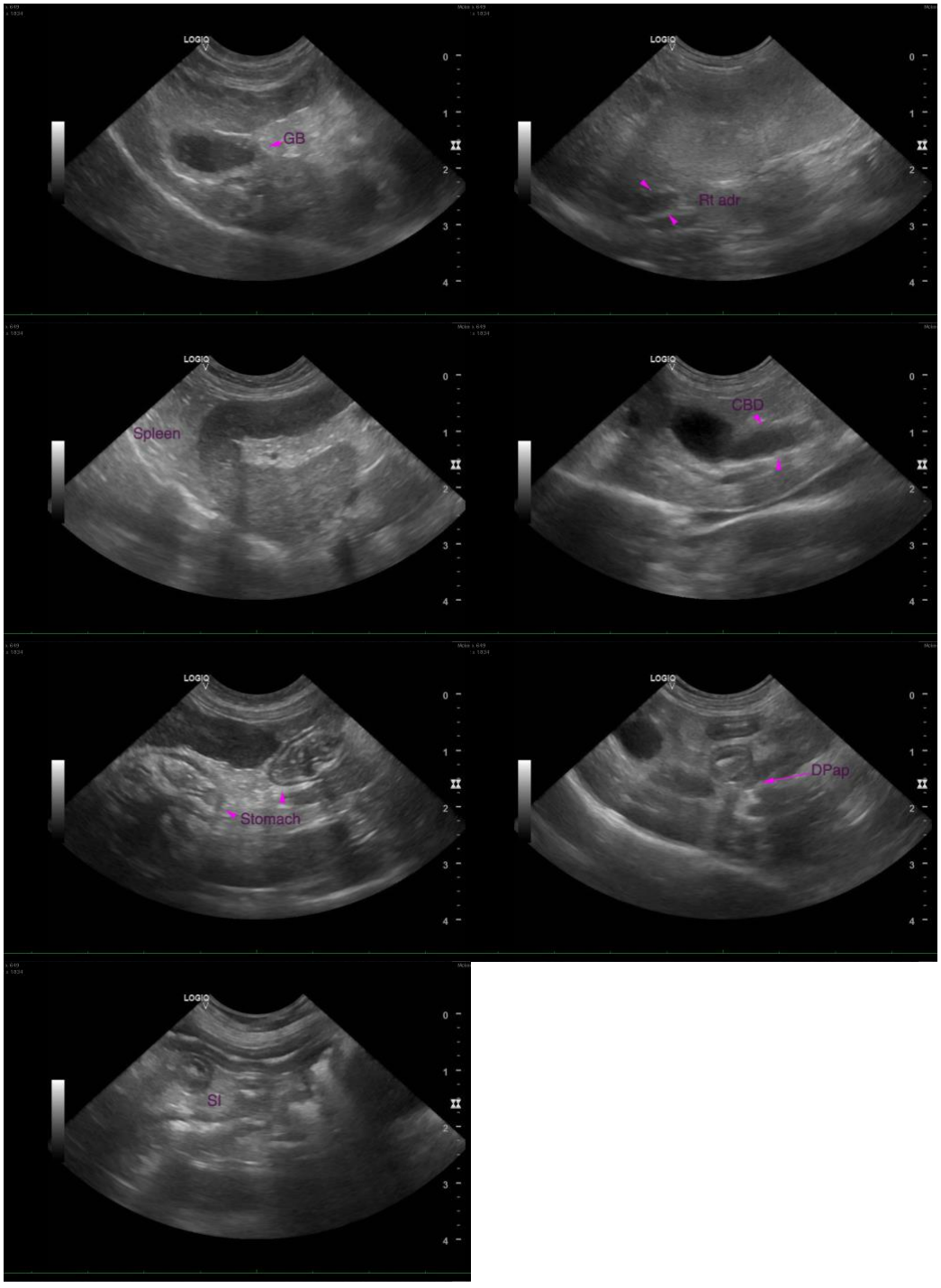

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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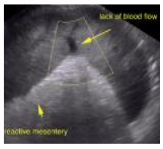
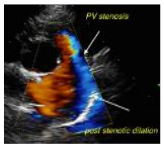
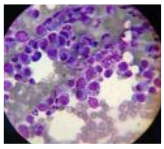
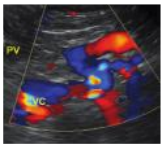

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