

**DATE PRESENTING CLINICAL SIGNS**

5/10/22

Hx of elevated ALP. Rechecked bloodwork on 5/6/22 and ALP almost doubled since January. Radiographs show potential for structure near liver. Hx of bilateral iliopsoas strains and CCL sx 2020.

PATIENT

Maxine Rose

Current Medications: Galliprant 20mg SID PRN- rarely used- last dose was 5/1/22, Glycoflex Plus 1 SID, Body sore herbal supplement BID for about 6-12 months, recently discontinued, Adequan 0.46mL IM q 2 weeks, Metronidazole 250mg BID from 5/1/22-5/3/22.

Lab Results: ALP 460 on 1/6/22. ALP 822 on 5/6/22, ALT increased at 169.

SPECIES

Canine

Radiographs: Potential structure or mass near liver.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Gabapentin 200mg and Trazodone 50mg PO.

Stat Report: Not requested.

BREED

Scottish terrier

Imaging Performed By: Stephanie Pearce RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Female, spayed

Urinary System

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is mildly distended with anechoic urine. 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.

AGE

10/25/2010

The left kidney is normal size (5.07 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

20.4 lbs.

The right kidney is normal size (4.38 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

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

Adrenal Glands

The left adrenal gland is normal size (0.51 cm at cranial pole) (0.52 cm at caudal pole) (2.48 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

HOSPITAL NAME

Fallston VC

The right adrenal gland is normal size (0.53 cm at cranial pole) (0.55 cm at caudal pole) (2.41 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

REFERRING VET

Dr.. Lomax

Spleen

The spleen is mildly enlarged (2.09 cm in width at the level of the hilus) with swollen peripheral contours. The parenchyma is mottled in appearance. No distinct focal lesions are observed. Splenic vasculature is normal with no evidence of thrombosis.

INVOICE

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Liver

The liver is subjectively prominent in size with swollen curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of echogenic

debris/sludge is observed within the lumen, most of which is partially dependent and some of which is suspended. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is not distended. The gastric wall in the region of the fundus is normal in thickness with a normal layering pattern. In the region of the pyloric antrum, the muscularis layer is disproportionately thickened (up to 0.52 cm). There is retention of the normal layering pattern and the pyloric outflow tract is patent. The small intestinal lumen is not dilated. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

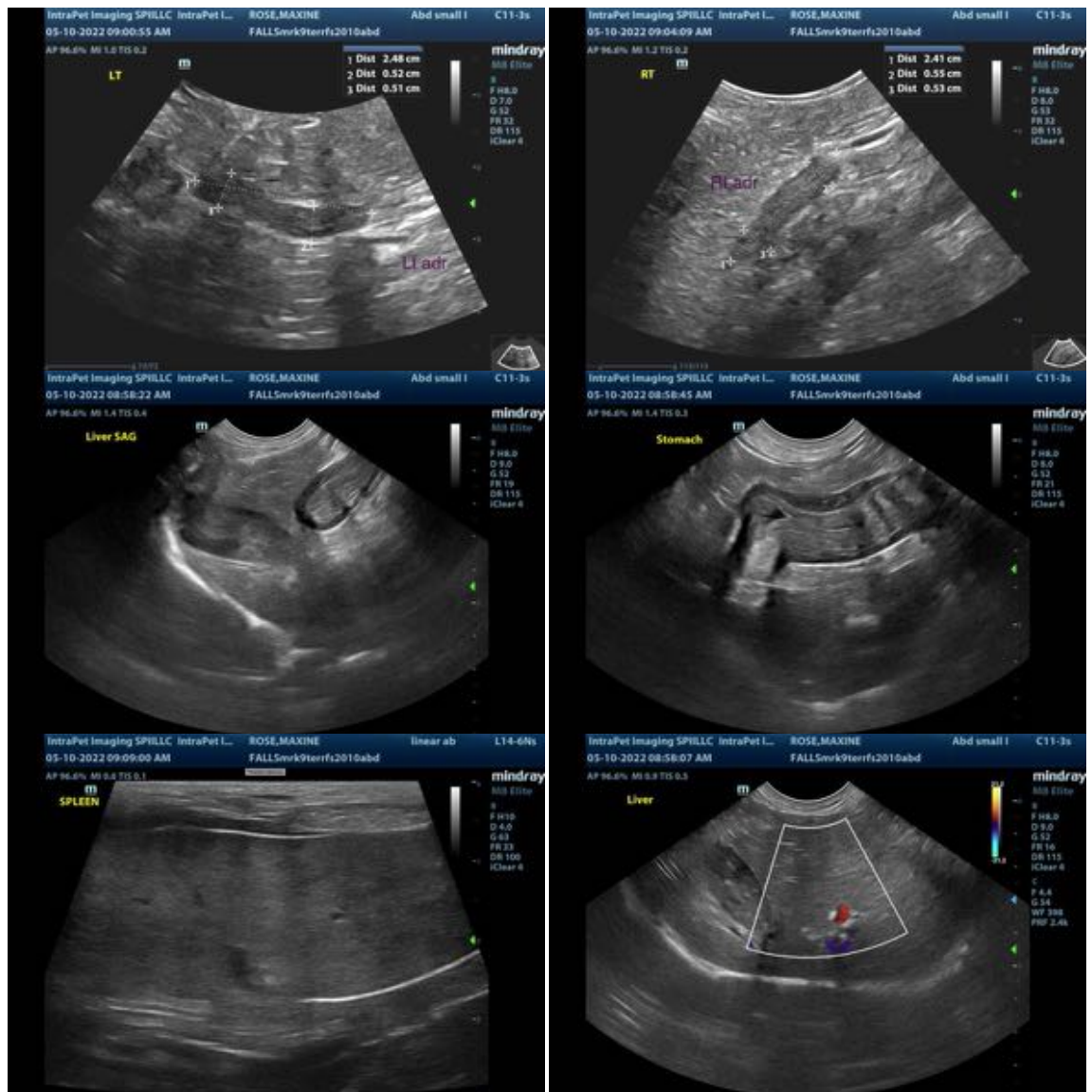
- The hepatic parenchymal changes are non-specific and could be associated with degenerative vacuolar hepatopathy of Scottish terriers, copper hepatotoxicosis, regenerative nodular hyperplasia and/or age-related remodeling. Inflammatory disease is considered less likely given the minimal ALT elevation. Infiltrative neoplasia is possible but considered unlikely.
- Gallbladder debris, non-mucocele.
- The splenic changes could be consistent with emerging neoplasia (i.e., round cell tumor). Alternatively, a benign process (i.e., lymphoid hyperplasia, extramedullary hematopoiesis, antigenic stimulation or splenitis) may be present.

Secondary Findings:

- The thickened muscularis layer of the pyloric antral wall could be consistent with hypertrophy, inflammation or less likely, emerging neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the elevated liver values, a surgical liver biopsy would be necessary to get a definitive diagnosis. If biopsies are pursued, aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for potential copper quantitation should be considered.
- If a more conservative approach is to be pursued, liver enzymes should be monitored at least every 3-4 months to assess for continued progression. It should be noted that degenerative vacuolar hepatopathy of Scottish terriers has been linked to hepatocellular carcinoma in some cases. Therefore, if values continue to increase, a repeat abdominal ultrasound may be warranted.
- Regarding the splenic changes, a fine needle aspirate is recommended if clotting status is appropriate. This will help to determine if round cell neoplasia is 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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