

**DATE PRESENTING CLINICAL SIGNS**

3/9/2022

PATIENT

Chai Spagnolo

History: Owner was concerned about changes in the gum color. Patient was also noted to start appearing hunched- acting weird, moving slow, laying around. Decreased appetite today, did eat treats. No vomiting or diarrhea - stool seemed a bit harder last night, no BM today. Known ITP. Presented to rdvm: - bw: ALT 538, ALP 1669, GGT 202, Chol 431, RBC 4.05, HCT 31.3, Lym 0.41 (were 0.48) - had U/S on 12/17/21: non-specific hepatic parenchymal changes - benign age related changes vs inflammation vs neoplastic infiltration (less likely) - gall bladder debris.

SPECIES

Canine

BREED

Goldendoodle

Current Medications: Prednisone 20 mg q24 - last given at 930p yesterday - Sucralfate 1 g q8 - last given at 2p - Pepcid 20 mg q12 - last given 930p yesterday - Azothioprine 50 mg q24 - last given 930p yesterday. Date of Previous IntraPet Ultrasound: 12/17/21.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

SEX

Spayed Female

Imaging Performed By: Rachel Brillhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**AGE**

12/28/2012

Urinary System

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately 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.

WEIGHT

77.8 lbs

The left kidney is normal size (7.31 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

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The right kidney presented normal size (5.86 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

HOSPITAL NAME

Animal Emergency
Hospital

Adrenal Glands

The left adrenal gland is normal size (0.46 cm at cranial pole) (0.56 cm at caudal pole) (2.70 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. Nacke-Horney

The right adrenal gland is normal size (0.77 cm at cranial pole) (0.73 cm at caudal pole) (2.38 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.

INVOICE

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Spleen

The spleen is normal in size (1.30 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely heterogenous and mottled, with a nodular appearance, particularly on the right side. Hepatic vasculature and intrahepatic 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 is observed within the lumen, most of which is gravity dependent and some of which is suspended. The cystic and common bile ducts are normal.

Gastrointestinal

The gastric wall is normal in thickness with a normal layering pattern. A 3.06 cm hard shadowing structure is observed within the lumen, along with a small amount of fluid. The small intestinal lumen is not dilated. The small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The ileocecolic junction and colonic wall are normal.

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. A 0.91 x 0.53 cm mesenteric lymph node is visualized.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The hepatic parenchymal changes have changed/progressed since the previous sonogram. Differentials include inflammatory disease, infiltrative neoplasia, hepatotoxicosis (i.e., drug-induced copper-associated), regenerative nodular hyperplasia, vacuolar hepatopathy and/or other hepatopathy.
- Gall bladder debris – incidental.
- The hard shadowing within the gastric lumen is suggestive of a foreign body.

Secondary Findings

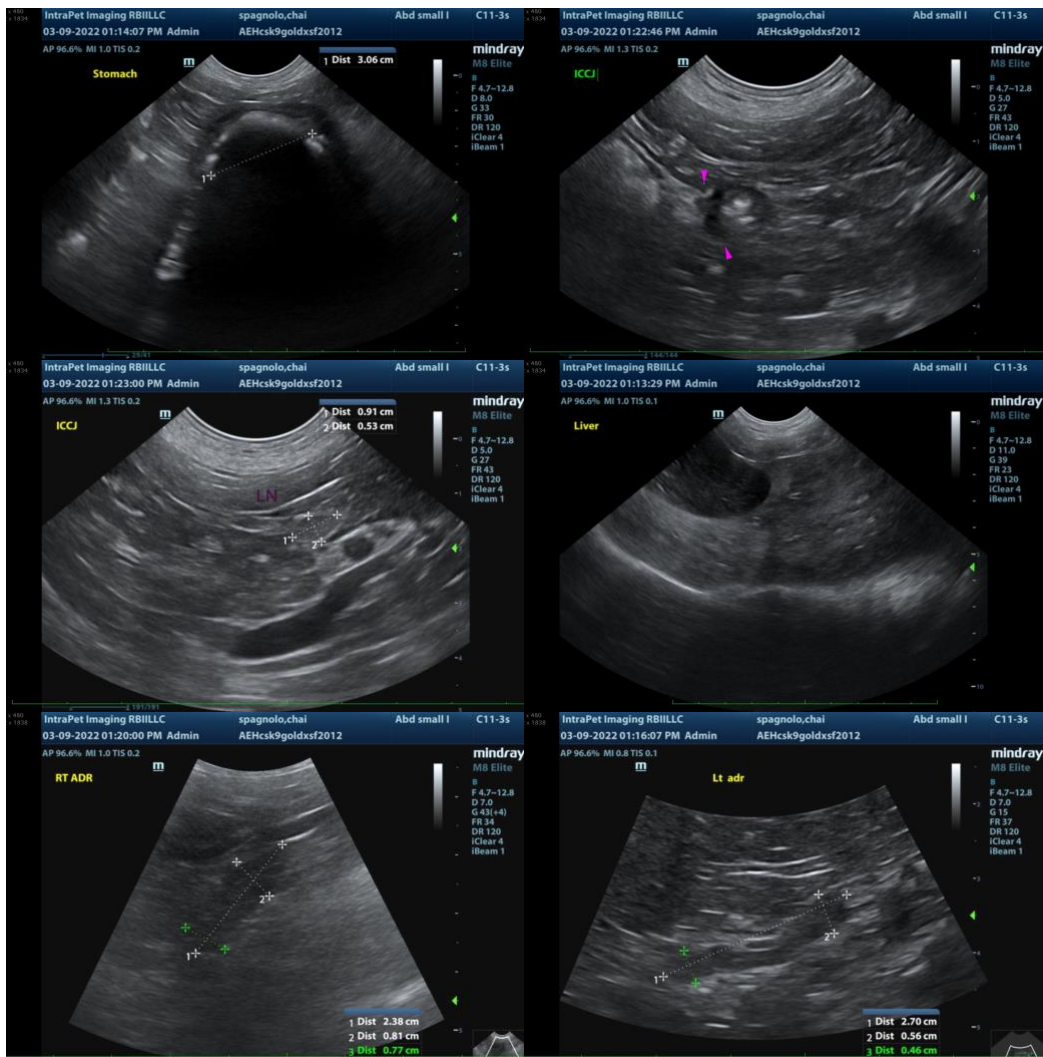
- Minor age-related renal changes.
- The prominent mesenteric lymph node is likely reactive.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the hepatic appearance and the history of pale gums, three-view thoracic radiographs are recommended to assess for cardiac or pulmonary disease.
- Also consider pre-and postprandial serum bile acids to assess hepatic function. Hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy) may also be warranted, particularly if the patient's liver values have increased since previously evaluated. A surgical biopsy would be ideal as

it is more likely to be representative of global organ pathology. If surgical biopsies are pursued, aerobic and anaerobic bile cultures, as well as acquisition of additional hepatic tissue samples for potential copper quantitation are recommended. If the patient has been chronically receiving azathioprine, consider discontinuation of the drug due to its potential for hepatotoxicity.

- A CBC with a reticulocyte count is also recommended to determine if the anemia is regenerative, versus nonregenerative.
- Other diagnostic considerations include a baseline blood pressure measurement to assess for systemic hypertension, as well as orthopedic and neurologic examinations to assess for evidence of pain.
- Given the suspicion of a gastric foreign body, supportive care for gastroenteritis is recommended, along with repeat abdominal imaging (i.e., radiographs or ultrasound) in 48-72 hours, to determine if the foreign body is still present. If it persists, a gastrotomy with foreign body removal may be warranted.



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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