

**DATE PRESENTING CLINICAL SIGNS**

10/11/21

History: Vomiting and diarrhea since Saturday. Abdominal pain today. Liquid, bloody, malodorous stool.

PATIENT

Heidi Bohle

Current Medications: No current medications.

Lab Results: Increased ALT, ALP and GGT. Today-ALT 580, ALP 500, GGT 19. 10/1/21 - ALT 55, ALP 196, GGT 5.

Radiographs: Not provided by the veterinarian.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Buprenorphine administered prior to scan.

Stat Report: STAT report not requested by the veterinarian.

SPECIES

Canine

BREED

Schnauzer

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 lumen is moderately distended with mostly 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.

SEX

Female, spayed

AGE

11/9/2012

The left kidney is normal size (4.47 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.

WEIGHT

15 lbs.

The right kidney is normal size (4.75 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.

INTERPRETED BYAndrea Nicastro, DVM,
Diplomate ACVIM
(Small Animal Internal
Medicine)**Adrenal Glands**

The left adrenal gland is borderline enlarged (0.61 cm at cranial pole) (0.62 cm at caudal pole) (1.61 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

Timonium AH

The right adrenal gland is mildly enlarged (0.76 cm at cranial pole) (0.71 cm at caudal pole) (2.05 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. Stephens

Spleen

The spleen is normal in size (1.24 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.

INVOICE

12323

Liver

The liver is subjectively prominent in size with swollen curvilinear peripheral contours. The parenchyma is isoechoic 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 portal vein: caudal vena cava ratio is approximately 1:1. The gall bladder lumen is distended. The wall is normal in thickness. A moderate to large amount of aggregated echogenic suspended sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

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. Discreet masses are not identified. The ileocecal colic junction and colonic wall are normal. The lumen of the descending colon contains liquid appearing fecal material. 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 gallbladder sludge could be consistent with cholestasis, early mucocele formation or, less likely, fasting.
- Non-specific diffuse hepatopathy. Differentials include inflammatory/immune mediated disease, hepatotoxicosis (i.e., copper), reactive hepatopathy +/- concurrent benign age-related pathology. Infiltrative neoplasia is possible but considered unlikely.

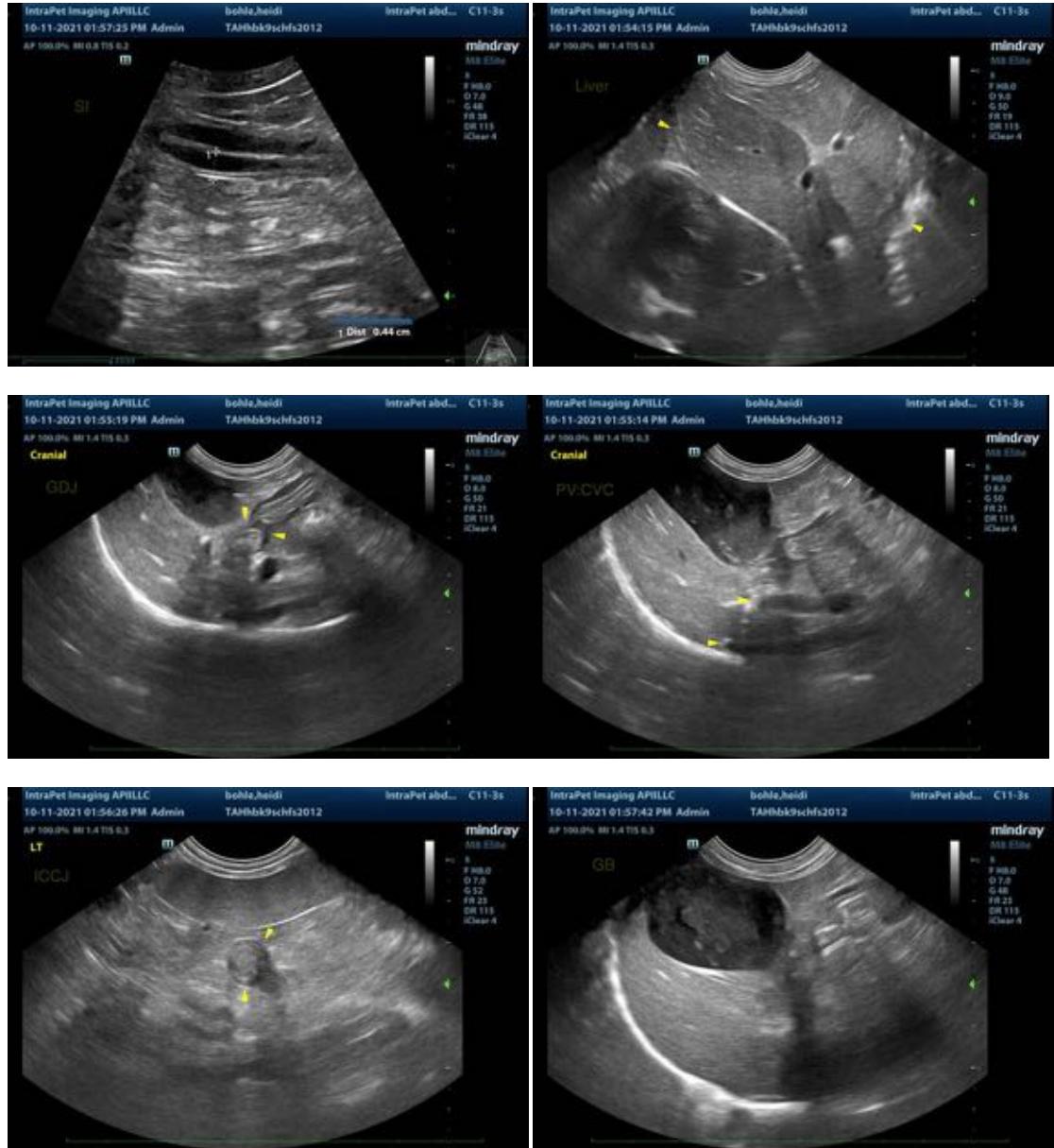
Secondary Findings:

- Borderline bilateral adrenomegaly.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Leptospirosis testing including blood and urine PCR, serology is recommended.
- A thorough history is also recommended to further assess for toxin ingestion.
- Cytologic evaluation of the liver should be considered in this patient if clotting status is appropriate. A fine needle aspirate using a 25-gauge needle is recommended. If cytologic evaluation is inconclusive, consider a surgical liver biopsy with aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for copper quantitation.
- If a conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis (amoxicillin-clavulanic acid, Denamarin Advanced). If no improvement in the liver values is seen within 7-10 days of initiating therapy, antibiotics should be discontinued and hepatic tissue sampling reconsidered. If liver values improve, continue therapy for at least 4-6 weeks and 1 week beyond normalization of the liver values.
- If the patient is to undergo anesthesia, three-view thoracic radiographs are recommended to evaluate cardiopulmonary status.





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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