

**DATE PRESENTING CLINICAL SIGNS**

1/27/2022

History: Not eating for 6 days, vomited yellow bile for 5 days, when she drinks vomits right away. Painful abdomen, no palpable mass, anorexia, lethargy and icterus.

**PATIENT**

Dingo Upperman

Current Medications: Denamarin 35 lbs plus, Clavamox 250mg 1 bid for 14 days, Cerenia 24mg 1 tab once daily for 4 days. In hospital: Buprenex 1.0 ml, Polyflex 2.5ml, Cerenia 1.7 ml.

Lab Results: CBC non diagnostic. Chem - all liver enzymes elevated including bilirubin.

Radiographs: enlarged liver, stomach displaced caudal view.

**SPECIES**

Canine

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Telazol.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

**BREED**

Pitbull Terrier Mix

**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 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.

**AGE**

6-9-2013

The left kidney presented normal size (5.51 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 hydronephrosis. Renal vasculature is normal.

**WEIGHT**

34.5 Lbs.

The right kidney presented normal size (5.26 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 hydronephrosis. Renal vasculature is normal.

**INTERPRETED BY**

Andrea Nicastro, DMV,  
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(Small Animal  
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**Adrenal Glands**

The left adrenal gland is mildly enlarged (0.72 cm at cranial pole) (0.86 cm at caudal pole) (2.17 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**

Glen Burnie Animal  
Hospital

The right adrenal gland is mildly enlarged (0.88 cm at cranial pole) (0.83 cm at caudal pole) (2.14 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. Shah

**Spleen**

The spleen is normal in size (1.58 cm in width at the level of the hilus) with a normal capsular contour. The parenchyma is subtly mottled in appearance. No focal lesions are observed. Splenic vasculature is normal.

**INVOICE**

10223

**Liver**

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and subtly mottled in appearance. There is an increase in portal markings, which are indistinct at times. No distinct focal lesions are observed. Hepatic vasculature is normal with no evidence of congestion.

The gall bladder contracted. The minimal luminal contents are anechoic. The wall is thickened (up to 0.40

cm), irregular and hyperechoic. A scant amount of free fluid is observed adjacent to the gall bladder wall. The trace ascites is likely secondary to gall bladder wall inflammation. The cystic and common bile ducts are normal. The common bile duct measures 0.33 cm in diameter at the level of the duodenal papilla.

### ***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 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 colonic wall is normal. No obstructive or overt infiltrative disease is noted.

### ***Pancreas***

The right limb is prominent with minimal deviation from the normal peripheral contours. The parenchyma is hypoechoic relative to surrounding omental fat and slightly mottled in appearance. No distinct focal lesions are observed. The mesentery effacing the serosal surface is subtly hyperechoic.

### ***Free Abdomen***

Trace free fluid is observed adjacent to the gall bladder. The abdominal lymph nodes are normal/not visible.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- The hepatic changes are most consistent with an inflammatory process (i.e., arterial cholangiohepatitis, chronic hepatitis, Leptospirosis). However other hepatopathies (i.e., hepatotoxicosis), are also possible. Infiltrative neoplasia is considered unlikely.
- The gall bladder wall changes are suggestive of cholecystitis. However, the thickening may be somewhat artifactual due to lack of luminal distention.
- The pancreatic changes are consistent with mild to moderate pancreatitis which may be acute or chronic/active.

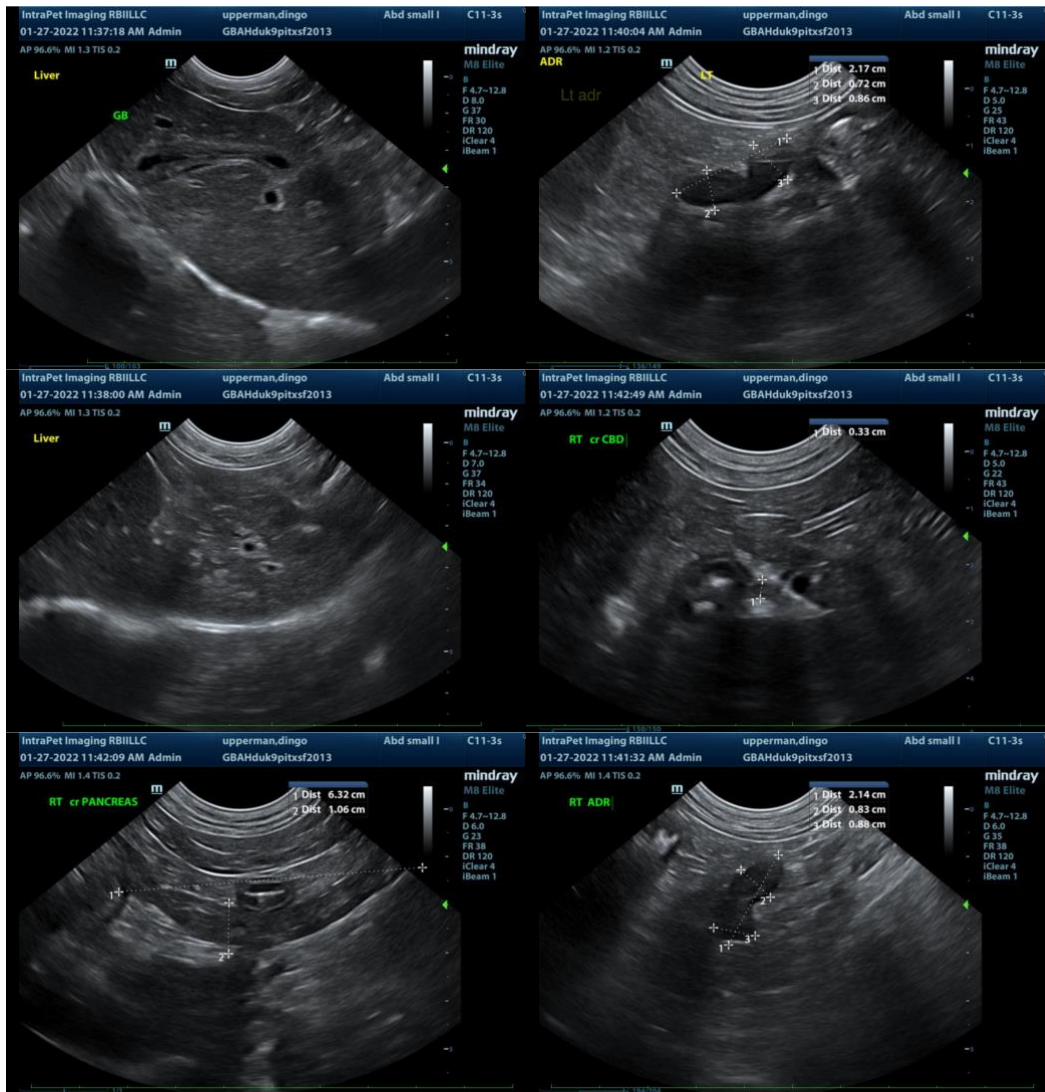
### **Secondary Findings**

- Mild bilateral adrenomegaly
- The splenic parenchymal changes are most consistent with a benign process (i.e., lymphoid hyperplasia or extramedullary hematopoiesis, with a lower possibility of emerging neoplasia (i.e., round cell tumor).

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Leptospirosis testing (i.e., blood-in-urine PCR, serology), is recommended.
- Hepatic tissue sampling (i.e., fine-needle aspirate or biopsy), if clotting status is appropriate. Ideally, surgical biopsies with aerobic and anaerobic bile cultures and acquisition of hepatic tissue sampling for potential copper quantitation would be pursued.
- If a more conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis/cholecystitis/Leptospirosis/pancreatitis with broad-spectrum antibiotics and supportive care.

- Given the patient's age, 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/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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