

**DATE PRESENTING CLINICAL SIGNS**

12/6/22

ATO P has been constantly vomiting since 10:30 pm last night Start as food but has progressed to water only- When P drinks she can't keep the water down Is on medication for skin and ear infection - Cefpo, Pred, Animax and Trazodone for anxiety Recently switched to Rawz diet about a week ago, seems to be doing well on it HX of food allergies and skin issues Previous Hx of bloat and gastropexy No know FB or toxin ingestion rDVM records - 11/25/22 increase in Globulins (4.8), all other Chem wnl Lepto vac due 2012 ALT 3227, ALP 4255.

**PATIENT**

Ocean Brooks

**SPECIES**

Canine

Current Medications: None listed.  
 Date of Previous IntraPet Ultrasound: No previous.  
 Sedation: IV Torb.  
 Stat Report: Not requested.  
 Imaging Performed By: Rachel Brillhart, RDMS.

**BREED**

Weimeraner

**SEX**

Female, spayed

**AGE**

1/9/2013

**WEIGHT**

80.6 lbs.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder wall is 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.

The left kidney is normal size (7.47 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.

The right kidney is normal size (7.89 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild 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 (0.62 cm at cranial pole) (0.78 cm at caudal pole) (3.00 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.

The right adrenal gland is normal size (0.69 cm at cranial pole) (0.71 cm at caudal pole) (2.57 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**

Animal Emergency  
 Hospital

**REFERRING VET**

Dr. Hicks

**Spleen**

The spleen is located on the right side of the abdomen and is normal in size (1.66 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**

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**Liver**

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen with minor changes consistent with age-related remodeling. No focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is distended. The wall is normal in thickness. A large amount of aggregated/organized suspended sludge is observed within the lumen and appears to extend into the cystic

duct. The mesentery effacing the serosal surface of the gallbladder is mildly hyperechoic. The cystic and common bile ducts are normal/not seen.

### ***Gastrointestinal***

The gastric lumen is not distended. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is segmentally fluid distended (mild). 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 disease is noted.

### ***Pancreas***

The right limb of the pancreas is normal in size with normal curvilinear peripheral contours. The parenchyma is largely hyperechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

### ***Free Abdomen***

There is no obvious evidence of free fluid. The abdominal lymph nodes are normal/not visible.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings:**

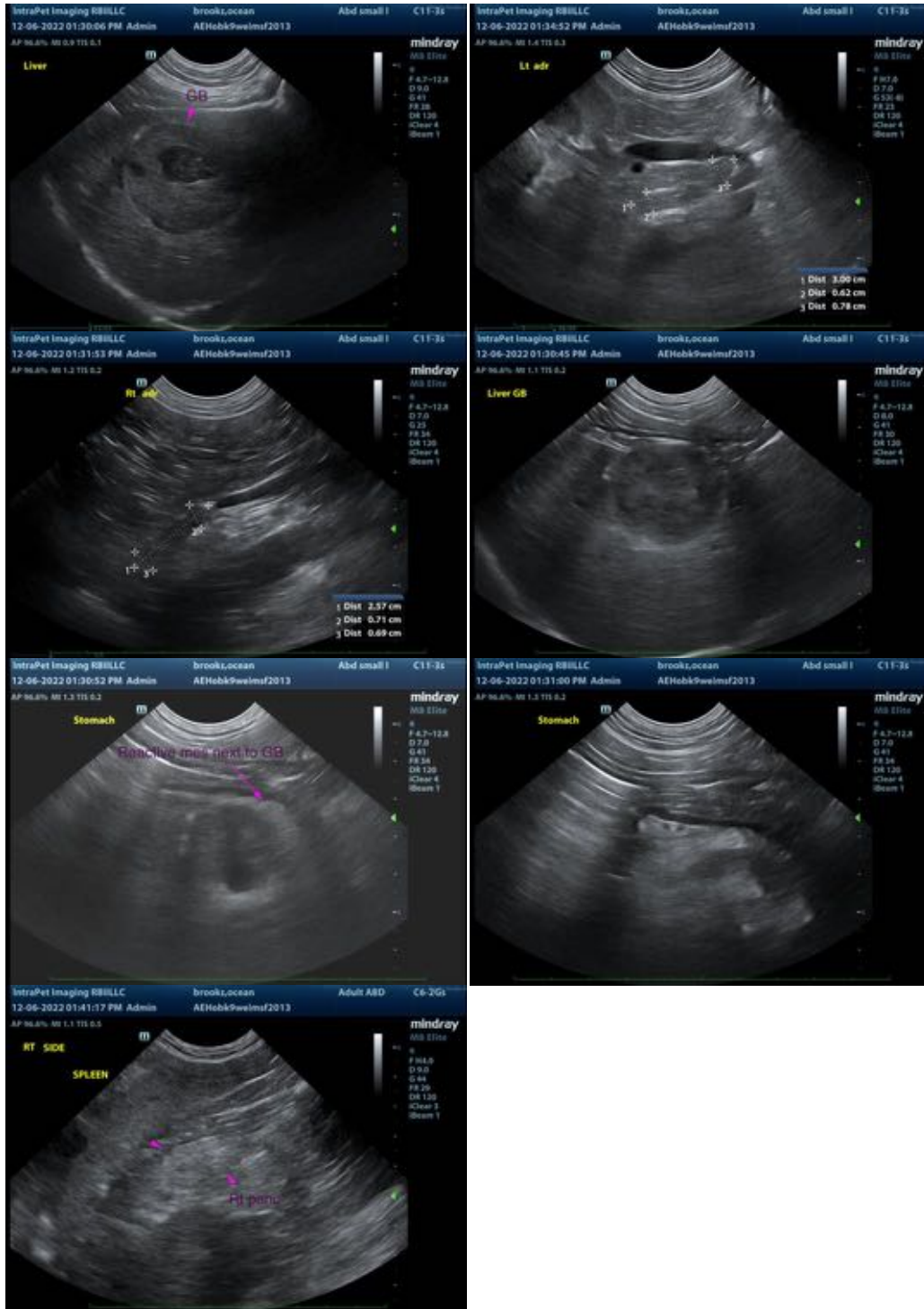
- The gallbladder changes are most concerning for a developing mucocele with concurrent cholecystitis.
- The hepatic parenchymal changes in conjunction with the patient's elevated liver values, are suggestive of a diffuse hepatopathy. Inflammatory disease (i.e., bacterial cholangiohepatitis, chronic hepatitis), Leptospirosis and hepatotoxicity are the top differentials. Infiltrative neoplasia is possible but considered less likely.

### **Secondary Findings:**

- The splenic positioning on the right side of the abdomen is likely secondary to prior gastropexy.
- Minor bilateral, age-related renal changes.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

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

- A cholecystectomy with liver biopsies, aerobic and anaerobic bile cultures +/- hepatic copper quantitation would be strongly considered. Three-view thoracic radiographs and clotting times should be assessed prior to surgery. If surgery is not pursued at this time, empirical treatment for cholecystitis/bacterial cholangiohepatitis is recommended, including broad spectrum antibiotics, hepatic antioxidants and supportive care. If this approach is pursued, close sonographic monitoring (i.e., every 3-4 weeks) is recommended to assess gallbladder progression, as rupture is a possibility.



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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