

**DATE**

3/8/23

**PRESENTING CLINICAL SIGNS**

Treated for a UTI on 2/13; after starting Clavamox pet vomited on 2/17 and appetite has been decreased ever since, still eating but only about half her meals. Clavamox was discontinued about 2/20 and Convenia given on 2/22; history of chronic hepatic calcifications and IVDD; Bloodwork on 2/13 CBC - reticulocytosis; chem - BUN progressively increasing - now at 50, ALP at 337, Amylase and lipase elevated, T4 normal, 4dx all neg; abdominal radiographs on 2/27 - possible mass effect caudal to stomach vs stomach pushed caudally due to hepatomegaly.

**PATIENT**

Meaniekins Foley

**SPECIES**

Canine

**BREED**

Dachshund

**SEX**

FS

**AGE**

4/4/2007

**WEIGHT**

10.5 lbs.

**INTERPRETED BY**Beth Johnson, DMV  
DACVIM**HOSPITAL NAME**Airpark Animal  
Hospital**REFERRING VET**

Dr. Ridinger

**INVOICE**

16315

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

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The right kidney is normal in size (4.07 cm), and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia, or infarcts observed. Non-obstructive areas of mineralization/nephroliths are noted, primarily in the diverticular of the kidney.

The left kidney is normal in size (3.59 cm), and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia, or infarcts observed. Non-obstructive areas of mineralization/nephroliths are noted, primarily in the diverticular of the kidney.

**Adrenal Glands**

The right adrenal gland is normal in size (1.89 cm in length x 0.63 width at the cranial pole and 0.61 cm width at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (2.22 cm in length x 0.58 cm width at the cranial pole and 0.59 cm width at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

### ***Spleen***

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

### ***Liver***

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature appear normal without distension or congestion. Multifocal intrahepatic choleliths are noted. The caudal right portion of the liver is subjectively more heterogeneous than the remaining parenchyma with an emerging, rounded, almost mass-like appearance to the lobe measuring 8.0 cm x 5.5 cm in size.

Gallbladder is mildly overdistended with a moderate amount of non-dependent, mildly aggregated/inspissated sludge. Hypo to anechoic cystic areas are noted between the gallbladder sludge and luminal wall. The wall is otherwise smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion.

### ***Gastrointestinal***

The stomach wall is normal in thickness (< 0.5 cm) and layering. The stomach wall is moderately over distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta / chyme, as well as fluid. There is no evidence of obstruction or foreign material noted. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (duodenum < 0.5 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

### ***Pancreas***

The observed pancreas appears appropriately isoechoic to surrounding omental fat. The capsule is mildly irregular in shape. Parenchyma is mildly heterogenous and coarse. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

### ***Free Abdomen***

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

## **ULTRASONOGRAPHIC FINDINGS**

### ***Primary Findings***

- Heterogenous Liver with likely incidental, multifocal intrahepatic biliary cholecystoliths– These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia. Additionally, a rounded emerging mass-like appearance is present that trends in appearance towards benign such as; marked nodular hyperplasia or benign adenoma / hepatoma, however, infiltrative neoplasia cannot be definitively ruled out.
- Emerging mucocele – Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. The non-dependent nature of this sludge combined with the cystic areas are suggestive, however, of possible emerging cystic mucosal hyperplasia or early gallbladder mucocele.

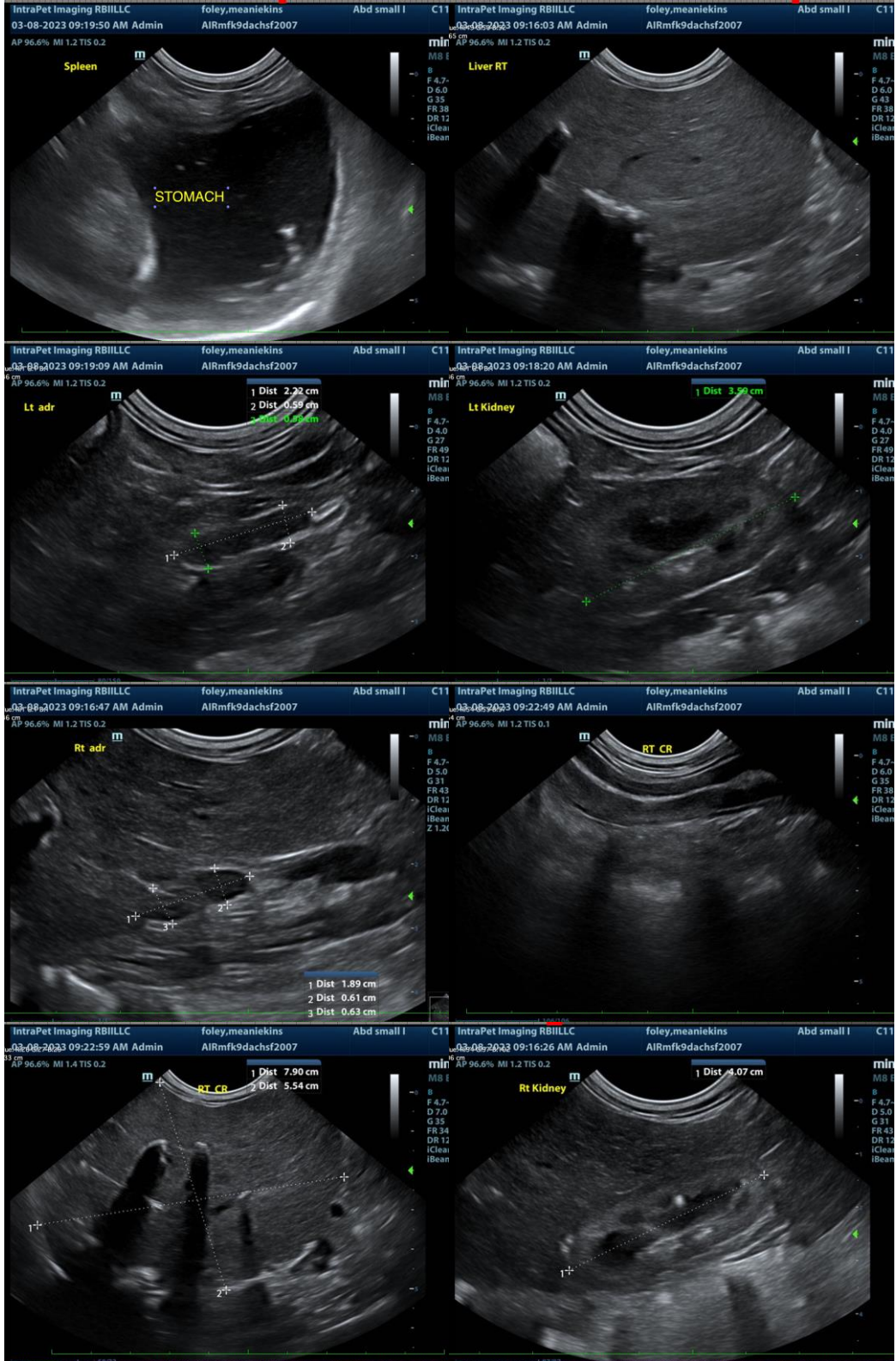
### ***Secondary Findings***

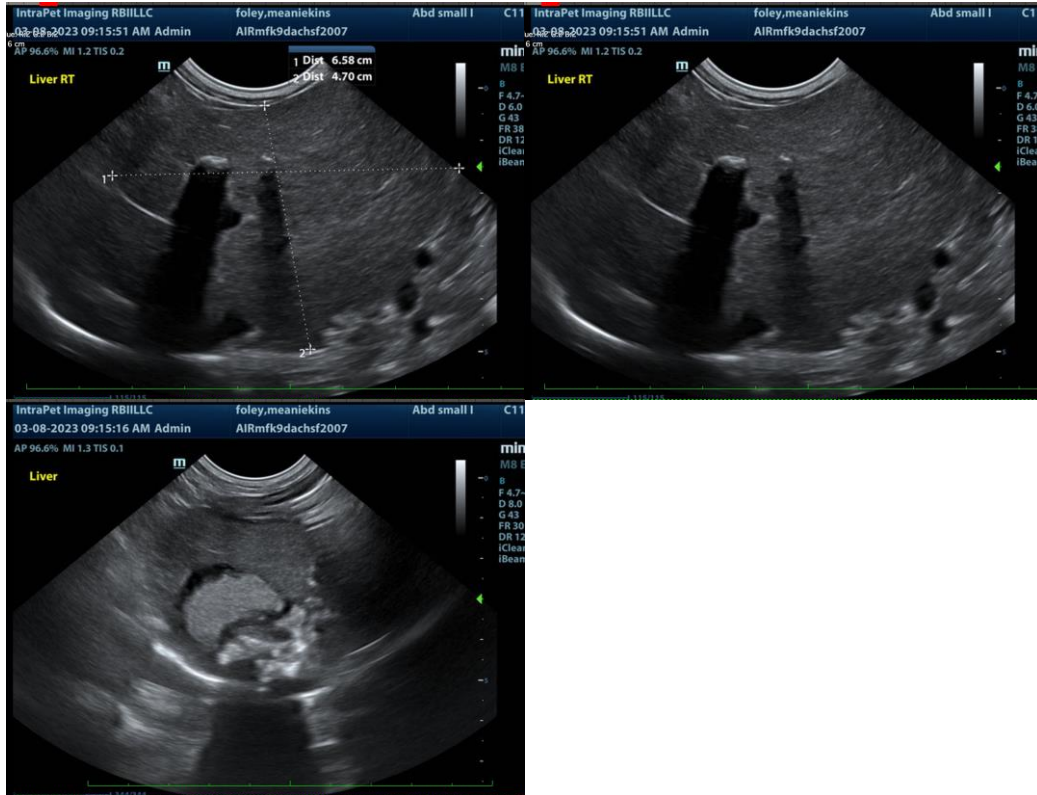
- Age-related kidney changes with small bilateral nonobstructive nephroliths
- Pancreatic age-related remodeling – Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.

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

Both the emerging gallbladder mucocele, as well as potentially the biliary mineral, intrahepatic biliary mineral, etc., could indicate concurrent cholangitis, cholangiohepatitis all of which could be contributing to decreased appetite, and this finding should be interpreted in combination with clinical signs such as cranial abdominal pain and/or laboratory changes that suggest an active ongoing process. However, given the reported chronicity of these findings and the acute inappetence following Clavamox, the more likely scenario is an acute gastritis or gastric upset secondary to antibiotics.

Therefore, recommendations include; supportive / symptomatic management with antiemetics, gastroprotectants, appetite stimulants if needed, etc., and discontinuation of the antibiotics as is reportedly already in place. If clinical signs persist beyond that, next steps including a more thorough gastrointestinal workup, potentially a fine needle aspirate of the liver, etc., could be considered.





**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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