



**PATIENT PRESENTING CLINICAL SIGNS**

Finnegan Lebrun History: 1) Occasional bile vomitus 2) Diarrhea 1 week with frank blood and straining 3) History of good appetite 4) History of drinking more 5) Aging changes eyes 6) Grade 2 dental disease with gingivitis 7) Mild increase ALT 8) Mod increase ALP 9) Weak Positive CAP in stool

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: Diarrhea has improved with Tylosin treatment CBC: Increased PCT  
CHEM: ALT 323 (N 10-125) Previous 211 ALKP 954 (N 23-212) Previous 723 Chol 9.25 (N 2.84-8.26)  
Previous 8.22

**BREED**

Medium Mixed

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**SEX**

Neutered Male

**Urinary System**

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. Luminal contents are mostly anechoic. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (0.83 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

**AGE**

12 years, 1 mo

The left kidney is normal in size (6.28 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. The cortex is isoechoic relative to the spleen. There is mild to moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

**WEIGHT**

23.7 kg

The right kidney is normal in size (6.58 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. The cortex is isoechoic relative to the spleen. There is mild to moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

**INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**Adrenal Glands**

The left adrenal gland is normal in size (0.44 cm at cranial pole) (0.61 cm at caudal pole) (2.55 cm in length) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature appear normal.

**IMAGING PERFORMED BY**

Dr Brian Barnes

The right adrenal gland is in normal size (0.90 cm at cranial pole) (0.55 cm at caudal pole) (2.10 cm in length) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature appear normal.

**HOSPITAL NAME**

Westview VH

**Spleen**

The spleen is normal in size (1.51 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 appears normal.

**REFERRING VET**

Dr Brian Barnes

**Liver**

The liver is subjectively enlarged. The peripheral margins of the left lateral lobe is swollen/irregular. The remaining peripheral contours are curvilinear. The parenchyma is isoechoic relative to the spleen. A 4.50 cm irregular heterogenous, slightly cavitated mass is observed in the left lateral lobe. The lesion causes capsular expansion. In the remainder of the liver, the parenchyma is homogenous. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

**INVOICE**

12665

**DATE**

4.5.23

The gall bladder lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of echogenic-to-mineralized 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/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 is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

### ***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**

- Left cystic hepatic mass. Neoplasia (i.e., adenoma, adenocarcinoma, biliary cystadenoma/cystadenocarcinoma, round cell tumor) is considered likely. However, a benign process (i.e., inflammatory focus, regenerative nodule) cannot be completely excluded. The diffuse hepatic parenchymal changes are nonspecific and could be consistent with vacuolar hepatopathy (i.e., idiopathic/endocrine), inflammatory disease, hepatotoxicosis (i.e., copper), infiltrative neoplasia, other hepatopathy.

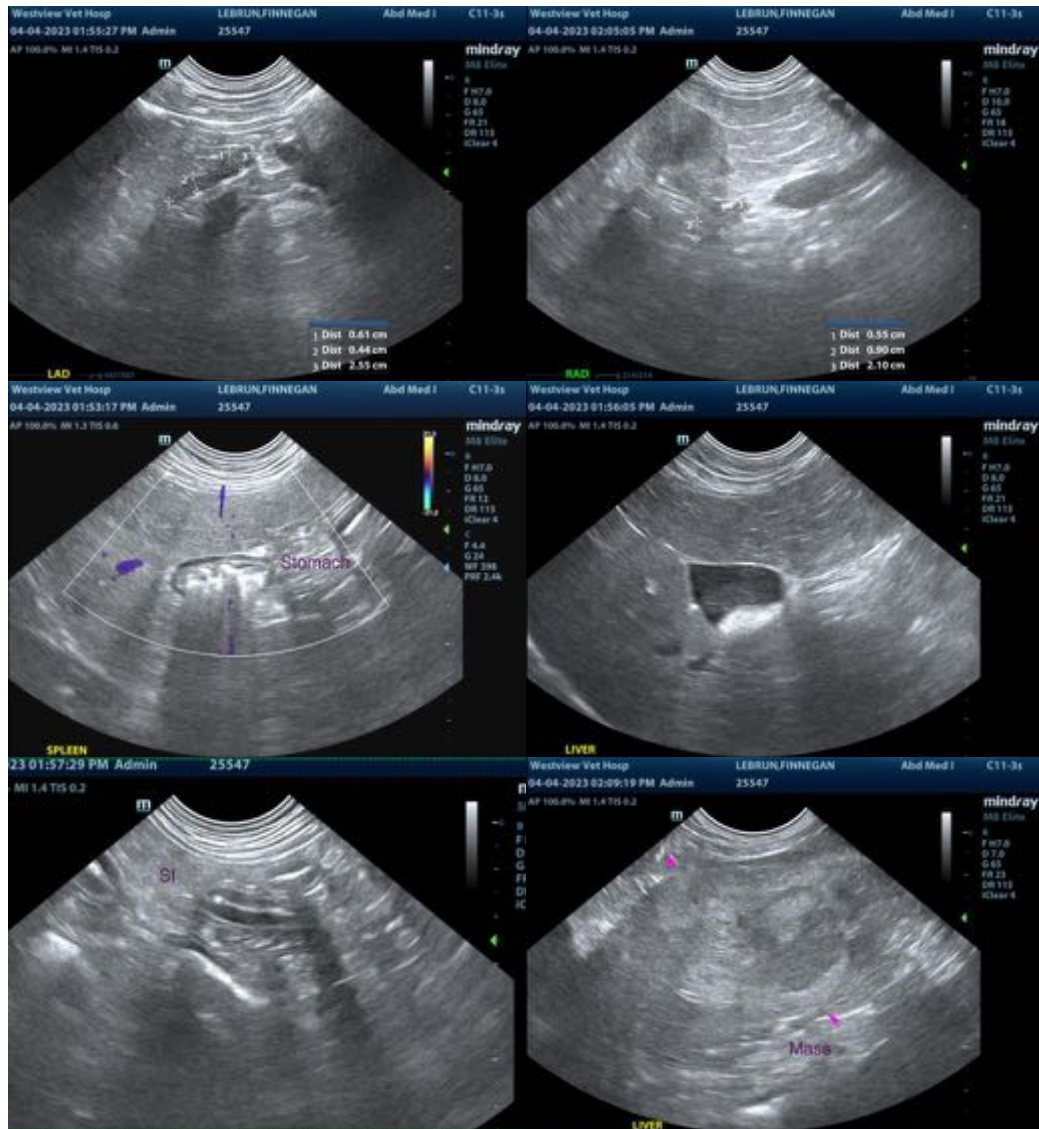
### **Secondary Findings**

- Gall bladder debris - non-mucocele
- Bilateral chronic renal changes with subtle dystrophic mineralization.

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

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- If cytology/biopsy results from the hepatic mass are inconclusive, excisional biopsy should be considered. If pursued, biopsies of the other hepatic lobes should also be obtained. Given the history of diarrhea, also consider obtaining gastrointestinal biopsies if the patient is stable under anesthesia.
- Regarding the GI signs, other diagnostic considerations could include the following:
  1. Fecal evaluation for ova and Giardia
  2. Fecal PCR infectious disease panel
  3. Prophylactic deworming with Fenbendazole
  4. GI panel including serum cobalamin and folate, TLI, PLI and resting cortisol level

5. +/- hydrolyzed protein and/or limited antigen or hydrolyzed protein diet trial if clinical signs persist.



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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