



## PATIENT

Louie Francis

## SPECIES

Canine

## BREED

Terr Mix

## SEX

MN

## AGE

14 years

## WEIGHT

8.7 kg

## INTERPRETED BY

Beth Johnson, DVM  
DACVIM

## IMAGING PERFORMED BY

Dr. Brian Barnes

## HOSPITAL NAME

Westview Veterinary  
Hospital

## REFERRING VET

Dr. Brian Barnes

## INVOICE

11695

## DATE

4/13/2026

## PRESENTING CLINICAL SIGNS

Geriatric, Previous hepatic mass. Reevaluate.

Abnormal PE/Chem/CBC/UA Results: Anemia , non-regenerative, HCT 25.2% SDMA 18 (N 0-14) Urea 12.2 (N 2.5-9.6), Creat normal TP 83 (N 52-82), Glob 47 (N 25-45) ALT 313 (N 10-125), ALKP >2000 (N 23-212) Low T4 11 (N 13-51) U/A: Free catch, straw yellow, sl cloudy, USG 1.010, pH 6.0, Leu neg, Pro 100, Glu/ Ket/ Bil Negative, UBG normal, Bld 25. SEDI: WBC 1/HPF, RBC 2/HPF, Bac rods preent, Non-SEC 1-2/HPF, Cast 0, Crystals 0.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The urinary bladder is adequately 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.

Prostate is normal in size, echotexture, and echogenicity for a neutered male.

Kidneys are overall normal in size 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 cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. Multiple cortical cysts are noted bilaterally. The largest in the left kidney measures 0.6 cm x 0.8 cm in size. In the right kidney a representative cortical cyst measures 0.5 cm in size. Trace pyelectasia is noted bilaterally. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted. There is no evidence of infarcts observed. Left kidney measures 5.3 cm, and the right kidney measures 5.3 cm.

### Adrenal Glands

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. Left adrenal measures 1.1 cm at the cranial pole and 0.76 cm at the caudal pole. Right adrenal measures 1.8 cm at the cranial pole and 0.78 cm at the caudal pole. The primarily cranial pole bilateral adrenomegaly is as a result of hyperechoic nodules in the cranial poles. Nodule does not disrupt normal shape and/or architecture.

### Spleen

The 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 diffusely mildly heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Focally, in the left caudal liver there is an approximately 6.4 cm x 4.7 cm in size, mildly heterogenous, largely hyperechoic mass. Visible vasculature and biliary tree appear normal without distension or congestion.



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Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

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### *Gastrointestinal*

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

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The visible small intestines are normal in wall thickness and layering. 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.

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

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### *Pancreas*

The pancreas that is observed appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

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### *Free Abdomen*

There is no visible free peritoneal effusion noted in these images.

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There is no apparent pathologic lymphadenopathy noted in these images.

## PRIMARY FINDINGS

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- Differentials for the liver mass include both a benign process such as marked nodular hyperplasia, hepatoma/adenoma, inflammatory lesion, other, as well as infiltrative neoplasia such as hepatocellular carcinoma, round cell neoplasia, even metastatic disease, etc. and can't be differentiated without tissue sampling.
- Moderate gallbladder debris - 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. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.
- Bilateral hyperechoic adrenal nodules - Differentials include primary adrenal cortical adenoma or adenocarcinoma, pheochromocytoma, myelolipoma, adrenal hyperplasia secondary to pituitary disease or metastatic disease. Ultrasound alone cannot differentiate between functional and non-functional nodules and/or between benign and malignant disease. Small nodules without other evidence of abdominal disease (to suggest metastatic disease) and/or clinical signs (to suggest adrenal disease) are most often incidental and should be monitored.

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## SECONDARY FINDINGS



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- Moderate age-related kidney changes with trace bilateral pyelectasia, multiple cortical cysts, and non-obstructive dystrophic mineralization.

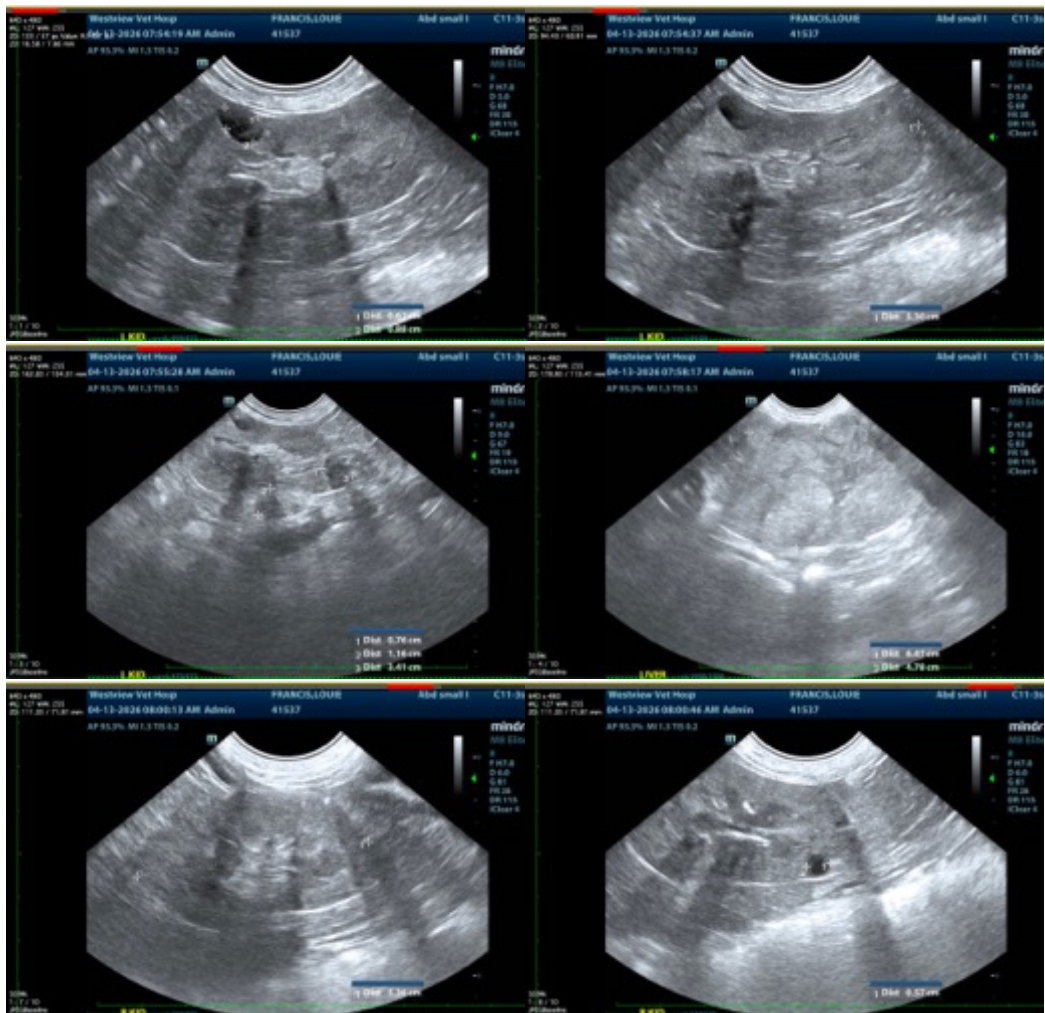
**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

Fine needle aspirates of the liver mass are recommended if patient's coagulation status is appropriate.

In the meantime, given patient's reported urinalysis results, a urine culture is also recommended.

The non-regenerative anemia may or may not be related to a slow chronic bleed, potentially involving the liver mass versus slow chronic gastrointestinal bleed could be secondary to kidney disease, bone marrow disease, etc. and warrants further evaluation.





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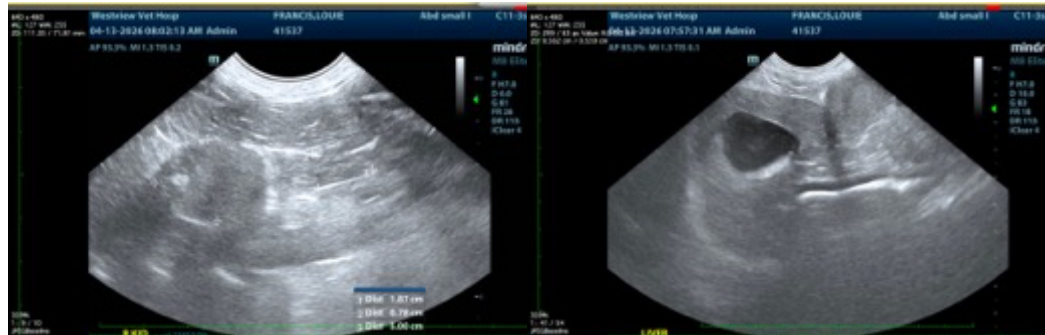
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM, DACVIM  
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