



## PATIENT

Georgie Courteau

## SPECIES

Canine

## BREED

Pomeranian x

## SEX

Neutered Male

## AGE

10 Years

## WEIGHT

4.8 kg

## INTERPRETED BY

Greg Kuhlman, DVM,  
DACVIM (SAIM)

## IMAGING PERFORMED BY

Carlie Koltek, RVT

## HOSPITAL NAME

Tuxedo Animal  
Hospital

## REFERRING VET

Dr. Pat Dorval

## INVOICE

75308

## DATE

5/20/26

## PRESENTING CLINICAL SIGNS

Diarrhea last 4-6 months. Normal appetite. Losing weight (was 5.8kg June 2025, 5.2kg Dec 2025). Hx of uroliths,

Abnormal PE/Chem/CBC/UA Results: PE: T: P: R: pant MM: pink Palpable firm structure in cranial abdomen CBC: MCV: 55.0fL (61.6-73.5) MCH 18.7pg (21.2-25.9) RDW 24.3% (13.6-21.7) Retic HGB 21.9pg (22.3-29.6) CHEM: CREA 32umol/L (44-159) ALB 43g/L (22-39) ALT 1267 U/L (10-125) ALKP 1857 U/L (23-212) GGT 81 U/L (0-11) CHOL 1.67 mmol/L (2.84-8.26)

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The bladder is moderately distended with anechoic urine. There is an 8.5 mm hyperechoic shadowing urolith present within the urinary bladder lumen. The bladder wall is normal in appearance and thickness. No masses are seen.

The right kidney presents normal size (3.9 cm) with normal shape and architecture. There is moderate loss of corticomedullary distinction. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted

The left kidney presents normal size (3.8 cm) with normal shape and architecture. There is mild loss of corticomedullary distinction. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted.

### Adrenal Glands

The right adrenal gland is mildly enlarged for a patient of this size, measuring 6.9 mm at the caudal pole and 6.6 mm at the cranial pole.

The left adrenal gland presents normal shape and homogenous parenchyma. The phrenic vasculature is unremarkable. The cranial pole measures 5.5 mm and the caudal pole measures 5.6 mm.

### Spleen

The spleen is normal in size, shape, margination and echogenicity. No masses are seen.

### Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. In the left aspect of the liver there are multifocal to coalescing hyperechoic masses present of variable size. A smaller mass measures 6.0 mm in diameter. A larger mass measures 3.0 cm x 1.8 cm. Visible vasculature and biliary tree appear normal without distension or congestion

The gallbladder presents normal size with anechoic contents. Normal gallbladder wall. No evidence of bile duct distention or obstruction.

### Gastrointestinal

The stomach and intestines have normal wall layering and thickness. Colon contains normal contents with normal wall thickness.



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## Pancreas

The visible pancreas is diffusely hypoechoic with mild to moderate surrounding steatitis.

## Free Abdomen

There are no enlarged abdominal lymph nodes seen on this exam. No free abdominal fluid is seen.

## ULTRASONOGRAPHIC FINDINGS

- Urinary bladder urolith.
- Loss of corticomedullary distinction bilaterally in the kidneys.
- Mildly enlarged right adrenal gland.
- Heterogeneous liver with liver masses.
- Diffusely hypoechoic pancreas with mild to moderate surrounding steatitis.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the bilateral loss of corticomedullary distinction, recommend full staging, monitoring and managing the patient per IRIS guidelines.

The mass lesions in the left aspect of the liver most certainly represent malignant neoplasia, either hemangiosarcoma or possibly hepatobiliary neoplasia such as hepatocellular carcinoma, or possibly cholangiocarcinoma. Recommend fine needle aspirate with submission for cytology. If cytology is inconclusive, consider CT scan as pre-surgical planning to determine if the masses are surgically resectable. If the masses are resected, submit for histopathology.

Regarding the urinary bladder urolith, consider starting a dissolution diet for one month and reimaging the stone to determine if it is resolving or has resolved. If the urolith is not resolved on dissolution diet, consider cystotomy, submitting the stone to the university of Minnesota Urolith Lab.

The patient appears to currently have active pancreatitis. Consider submitting cPLI to confirm. Pancreatitis may be reactive due to presence of the large liver mass that is present or may be primary in nature. Consider submitting a fasting triglyceride for this patient to determine if hypertriglyceridemia may be contributing to pancreatitis.

Recommend 3-view chest radiographs to screen the patient for pulmonary metastatic disease.

Prognosis at this time is guarded pending determination as to etiology of the liver mass.





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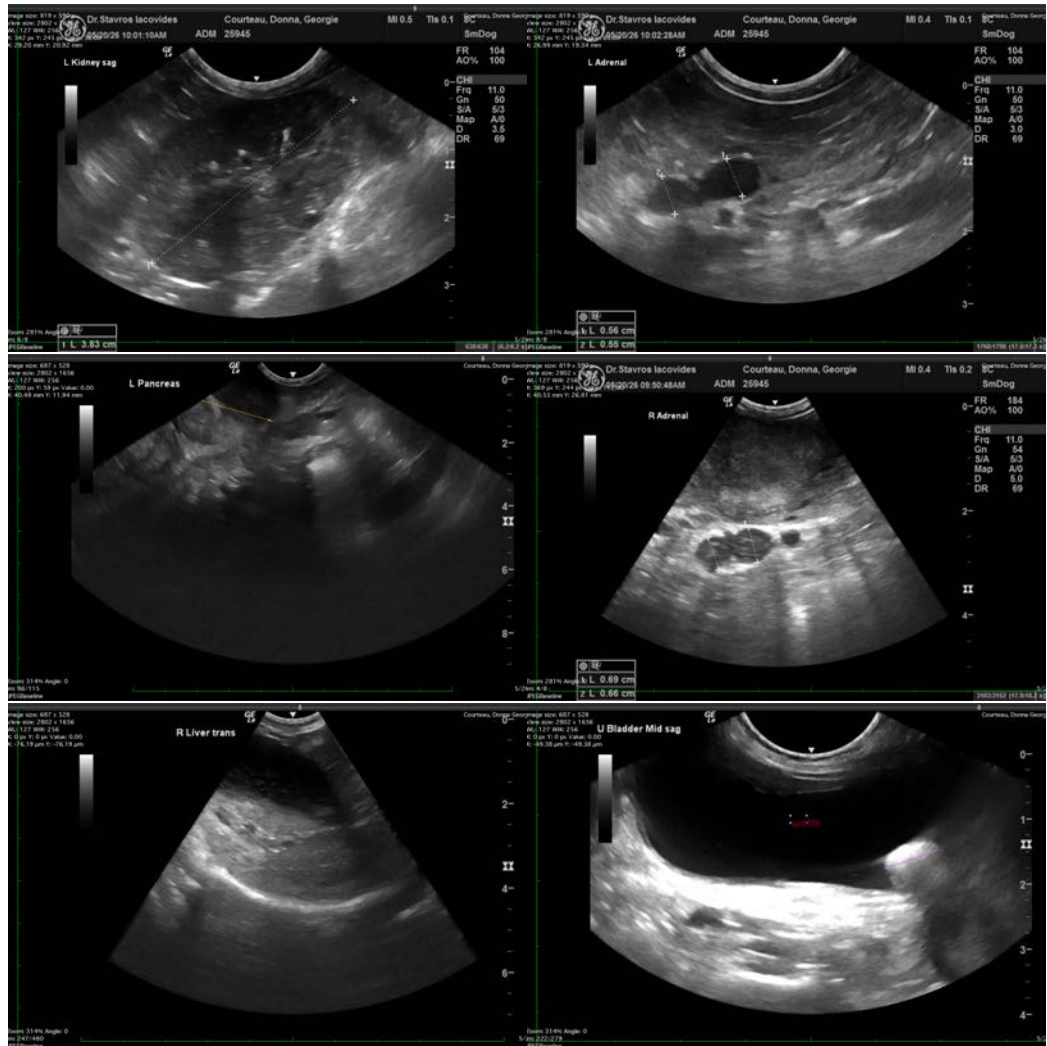
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Greg Kuhlman, DVM, DACVIM (SAIM)

Veterinary Internal Medicine Specialist

[info@SonoPath.com](mailto:info@SonoPath.com)