



**PATIENT PRESENTING CLINICAL SIGNS**

Romeo Sanford ELEVATED LIVER VALUES, PRE ANESTHESIA  
ALP 1623, ALT 150, Albumin 4.5, Glucose 123, BUN 30, Cholesterol 372, Precision PSL 798

**SPECIES**  
Unremarkable CBC

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED** *Urinary System*

Pomeranian Mix The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal tone. Mild nonuniform thickening of the urinary bladder wall was present. Several, variably sized, dependent cystic calculi were present in the dependent lumen. An example of a calculus measured 0.8 cm diameter. A focal area of prostatic nonobstructive urethral mineral was present. The urethra exhibited normal structure and tone to a depth of 3.0 cm.

**SEX**  
MN

The residual prostate was normal in appearance measuring 0.64 cm in diameter.

**AGE**  
2008

No evidence of pathology in the area of the aortic trifurcation.

**WEIGHT**  
16

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. Both kidneys exhibited Increased medullary echogenicity with focal areas of nonobstructive medullary mineral. A small caudal cortical cyst was present in the left kidney. No evidence of pelvic dilation was present. The left kidney measured 4.2 cm in length. The right kidney measured 4.3 cm in length.

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

**Adrenal Glands**

The left adrenal gland was indistinctly visualized yet without overt pathology measuring 0.49 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.37 cm width at the caudal pole and 0.79 cm width at the cranial pole.

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
ARDMS/RVT

**Spleen**

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

**HOSPITAL NAME**

New Britain VC

**REFERRING VET**

Dr. Bandekar

**Liver/ Gallbladder**

**INVOICE**

13405

The liver presented enlarged in size exhibiting generalized mild parenchymal remodeling. The capsule of the liver was symmetrically rounded to mildly swollen in margination. A solitary, well-demarcated, uniform, hyperechoic Intraparenchymal nodule was present in the mid-liver. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size. The gallbladder walls were sonographically unremarkable. The gallbladder

**DATE**  
2/23/22



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contained primarily anechoic content with mild dependent mineral / small choleliths, along with mild nondependent, nonorganized sediment present. The cystic and common bile ducts were normal.

***Gastrointestinal***

**SPECIES**

Canine

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material.

**BREED**

Pomeranian Mix

Normal visible colon wall layers were present with apparent formed feces in lumen.

***Pancreas***

**SEX**

MN

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

***Free Abdomen***

**AGE**

2008

No overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

16

- Small, multiple cystic calculi, focal nonobstructive prostatic urethra mineral
- Bilateral chronic renal changes exhibiting focal areas of nonobstructive medullary mineral

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- Hepatopathy exhibiting generalized parenchymal remodeling with solitary, subjectively benign intraparenchymal nodule - nodule suggestive of probable focal lipogranuloma
- Mild nonobstructive cholelithiasis with concurrent nondependent debris
- Mild pancreatic remodeling - age-related/patient variant, remodeling owing to previous inflammation or low-grade to chronic pancreatitis possible

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ARDMS/RVT

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**HOSPITAL NAME**

New Britain VC

The overall appearance of the liver was nonspecific yet most suggestive of benign chronic hepatopathy. Considerations may include vacuolar hepatopathy and cholestasis, given the elevated ALP, with potential for primary or concurrent nonspecific hepatitis / cholangiohepatitis, given the ALT elevation and presence of choleliths, early fibrosis / cirrhosis or other hepatopathy with neoplasia considered a less likely differential diagnosis.

**REFERRING VET**

Dr. Bandekar

Assuming normal clotting status, hepatic FNA for screening cytology could be considered for further clarification. Hepatosupportive medications including Denamarin and Ursodiol may prove beneficial. No overt anesthetic contraindications, given probable normal hepatic functionality exhibiting by normal BUN, albumin, cholesterol, and glucose levels. A full urinary workup is recommended.

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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.

**R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)**  
[mac.daniel@sonopath.com](mailto:mac.daniel@sonopath.com)