



## PATIENT

Cleo Cooper

## SPECIES

Canine

## BREED

Mixed

## SEX

Spayed Female

## AGE

13 Years 1 Month

## WEIGHT

29.3 kg

## INTERPRETED BY

R. McKenzie Daniel,  
DVM, DABVP (Canine  
/ Feline Practice)

## IMAGING PERFORMED BY

Dr. Jill Rankin

## HOSPITAL NAME

Beddington Trail Vet

## REFERRING VET

Dr. D

## INVOICE

14650

## DATE

03/26/26

## PRESENTING CLINICAL SIGNS

- P has hx of osteoarthritis, presented for evaluation of lethargy and elevated liver enzymes discovered on recent blood work.
- Blood work was performed to assess liver and kidney function prior to continuing long-term arthritis medication. The results revealed elevated ALP of 1214 (reference range high: 160), an elevated BUN of 14.3, elevated potassium at 5.5, mildly low chloride at 107, and a sodium-potassium ratio of 27. Platelets were also slightly elevated at 523.
- Cleo has a pre-existing history of osteoarthritis and is considered overweight with a high BCS. Other findings noted in the history include periodontal disease and cerumen in the ears.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Echogenic to particulate nondependent mild sediment was present without evidence of calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

Normal size and margination was 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 loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 6.5 cm in length. The right kidney measured 6.7 cm in length.

### Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.68 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 0.70 cm width at the caudal pole.

### 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.

### Liver & Gallbladder

The liver presented enlarged in size. Homogenous mild increased hepatic parenchyma echogenicity compared to the spleen. The liver parenchyma was uniform with a mild to variable coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. No mass or nodules were evident.



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The gallbladder was non distended in size with mild nonorganized biliary sludge. The cystic duct and common bile ducts were normal without evidence of dilation.

### **Gastrointestinal**

The visible gastric walls exhibited intact wall layering without mural pathology or hypertrophy. The stomach contained progressively shadowing ingesta without overt evidence of obstruction to pyloric outflow.

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.

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

### **Pancreas**

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**

No overt lymphadenopathy or peritoneal effusion was present.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- Hepatopathy.
- Mild gallbladder debris.
- Mild pancreatic remodeling.
- Age-related renal changes.
- Normal adrenal glands.
- Mild urine sediment.

### **Secondary Findings**

- Gastric ingesta- probable food echogenicity.

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

Although nonspecific, the liver is consistent with benign hepatopathy and suggestive of nonspecific or idiopathic vacuolar or non-obstructive cholestatic hepatopathy in conjunction with elevated ALP.

Assuming normal clotting status, hepatic FNA cytology, primarily to assess for evidence of inflammation. No evidence of adrenal pathology as a contributing factor, yet if clinical signs consistent with Cushing's syndrome are non-reported or arise, adrenal workup could be considered despite lack of adrenal pathology. Hepatosupportive medications may prove beneficial. Recheck urinalysis +/- renal staging to include screening culture/sensitivity and UPC level are recommended.



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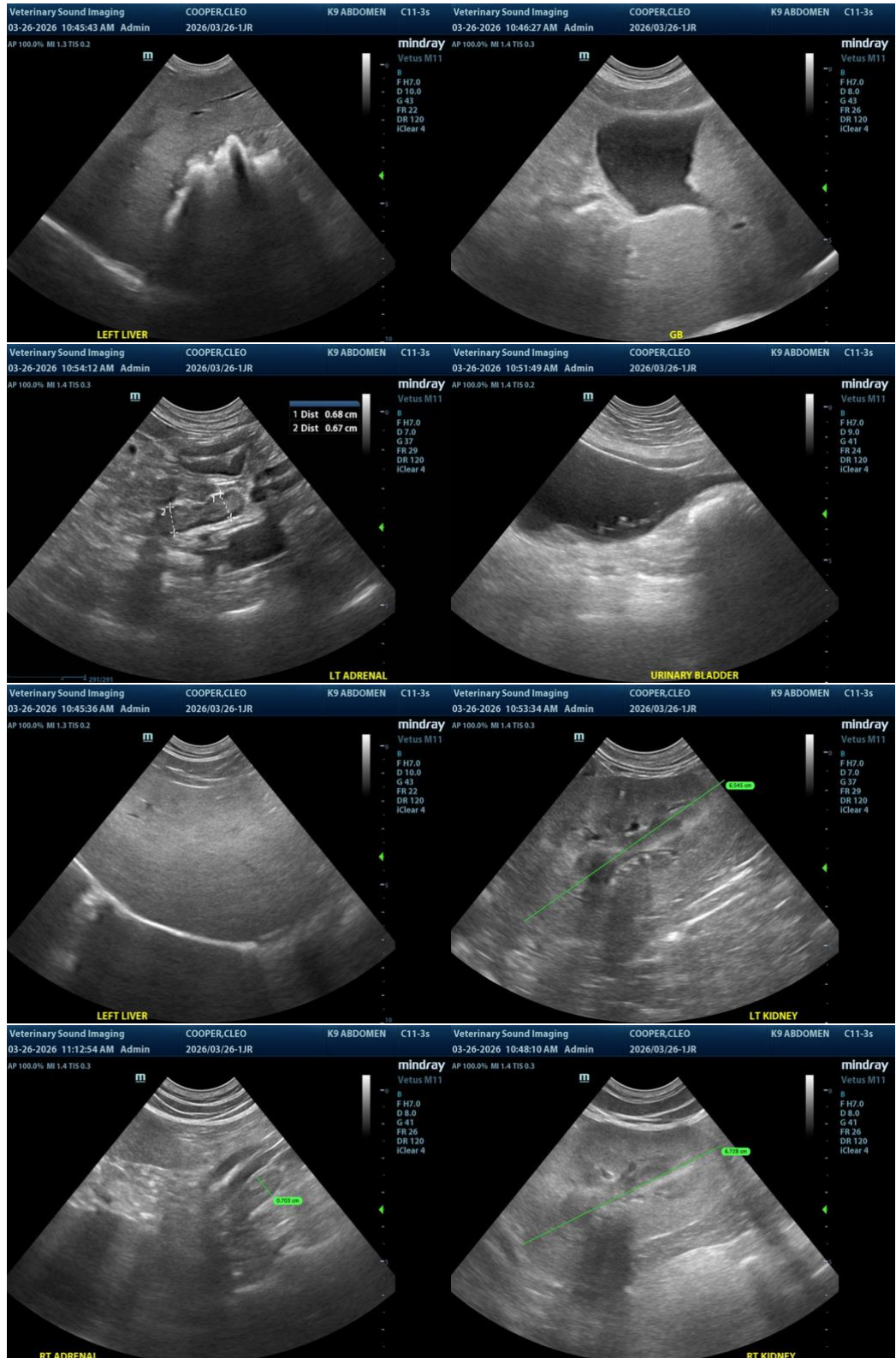
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

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