



## PATIENT

Leela Machuga

## SPECIES

Canine

## BREED

Australian Shepherd  
Mix

## SEX

Spayed Female

## AGE

11 Years 5 Months

## WEIGHT

33 lbs

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Dr. Sorbo

## HOSPITAL NAME

JM Pet Resort &  
Veterinary Clinic

## REFERRING VET

Dr. Sorbo

## INVOICE

16337

## DATE

05/18/26

## PRESENTING CLINICAL SIGNS

Patient presenting for sedated post-op check following full mouth extraction for end-stage periodontitis. History of high anxiety and PICA (soil, licking rocks, and cement). Clomipramine started 1 month ago, helped with anxiety, but not PICA. Extraction sites healed well. Longstanding ALP elevation without clinical PU/PD. ALP ~1000 one year ago – AUS at that time showed: vacuolar hepatopathy pattern, mild non-organized gallbladder debris (non-mucocele), subjective mild gastritis/duodenitis, probable mild chronic pancreatitis, age-related renal changes, normal bilateral adrenal glands. GI panel at that time was within normal limits, aside from slightly elevated TLI. ALP ~3000 two months ago (pre-op for dental extractions). ALP ~2000 today.

Today's bloodwork: ALP ~2000 U/L (see attached labs). Repeat AUS today – hypoechoic lesion identified in the left lateral liver lobe; ultrasound-guided sampling performed. Aspirate: straw-colored, non-turbid, clear fluid. Submitted for culture and fluid analysis. Question to be answered: What is the cause of the ongoing ALP elevation?

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Echogenic to particulate nondependent moderate 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.

The area of the aortic trifurcation was free of pathology.

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 6.6 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 0.53 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 0.65 cm width at the caudal pole.

### Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

### Liver & Gallbladder



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The liver presented mild/moderately enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly 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. A solitary thinly walled left intraparenchymal cyst was present containing anechoic fluid measuring approximately 1.5 cm in diameter.

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

### **Gastrointestinal**

The stomach presented with regionally thickened wall exhibiting indistinct to loss of wall layer detail subjective ventral to caudal gastric body with thickened stomach wall measuring 1.2 cm wall width. By comparison, nonthickened intact stomach wall measured 0.40 cm wall width. The stomach contained mild nonshadowing ingesta and lumen gas.

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 formed fecal matter in lumen.

### **Pancreas**

The areas of the pancreas was sonographically normal.

### **Free Abdomen**

No overt lymphadenopathy or peritoneal effusion was present.

### **ULTRASONOGRAPHIC FINDINGS**

- Hepatopathy with benign intraparenchymal cyst.
- Mild nonorganized gallbladder debris (non-mucocele).
- Regionally thickened stomach wall with mild gastric ingesta/gas- gastritis, infectious disease, emerging neoplasia or other.
- Sonographically normal small intestine/area of the pancreas.
- Mild chronic renal changes.
- Normal adrenal glands.
- Moderate urine sediment.

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

The liver continues to suggest benign criteria with vacuolar/cholestatic hepatopathy favored in conjunction with elevated ALP and presence of gallbladder debris. Mild potential for inflammatory hepatopathy i.e. cholangiohepatitis or similar with hepatic neoplasia considered unlikely. Correlation with hepatic cytology is recommended. No obvious evidence of adrenal disease as a contributing factor in conjunction with no reported clinical signs. Continued hepatosupportive medications and monitoring would be reasonable. Upper gastrointestinal endoscopy if available is recommended with potential for gastric biopsies and further clarification. Empirically, dietary trial and gastroprotectant protocol i.e. hydrolyzed diet and omeprazole at 1.0 mg/kg SID with serial sonographic monitoring of the stomach would be more conservative. Urine sediment may indicate cellular/crystalline debris, mucus or lipid. Correlation with urinalysis is recommended.



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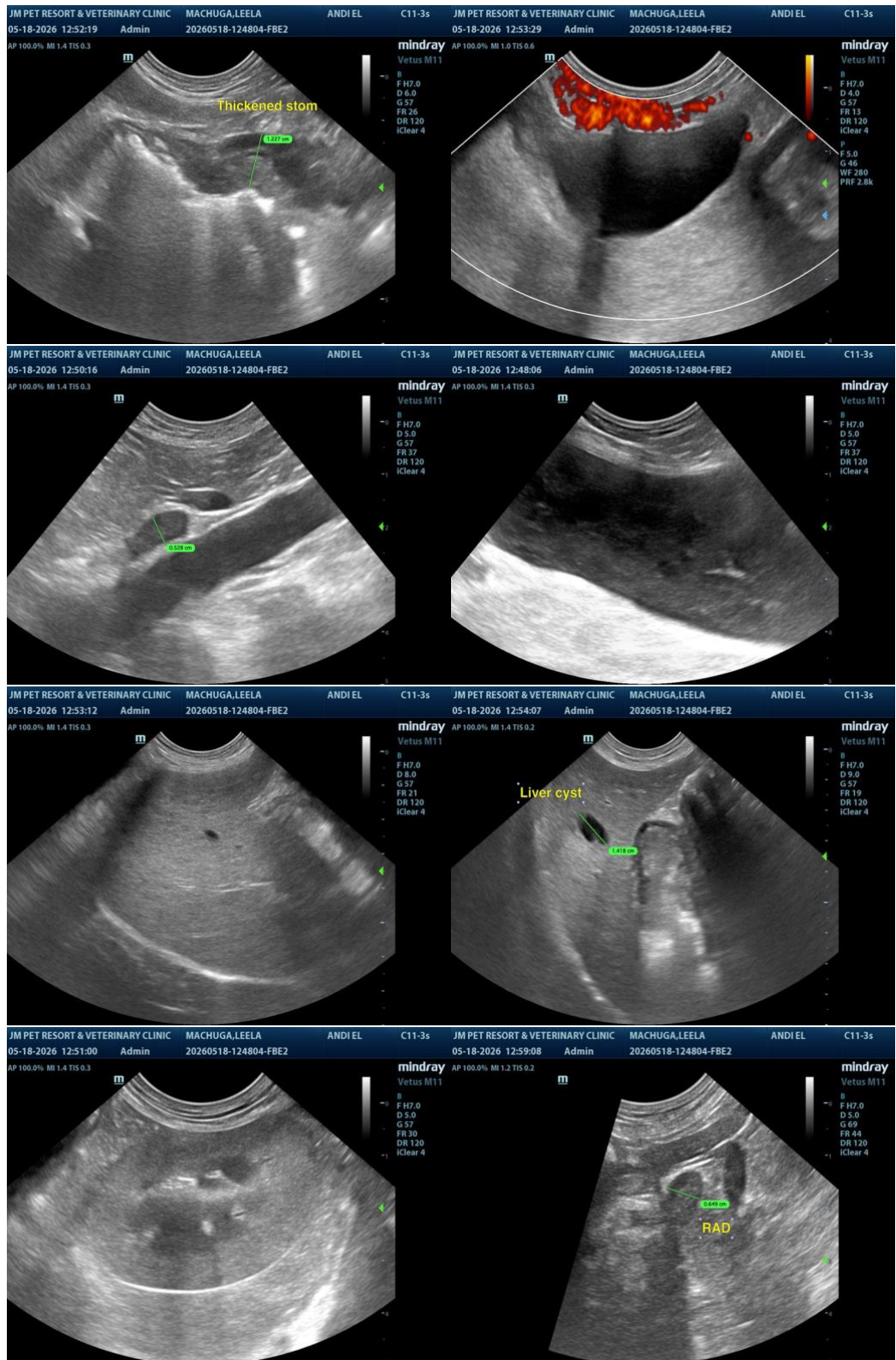
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)