



**PATIENT**

Buckshot McGarrigle

**SPECIES**

Canine

**BREED**

Shepherd Mix

**SEX**

MN

**AGE**

6yr

**WEIGHT**

27.5kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Alejandro Vargas  
Lumbreras

**HOSPITAL NAME**

Central Island  
Veterinary Emergency  
Hospital

**REFERRING VET**

Dr. Guenther

**INVOICE**

11118ag

**DATE**

07/12/2022

**PRESENTING CLINICAL SIGNS**

Lethargic, decreased appetite and drinking. Hypo diet for suspected food allergies. Hospitalized overnight on IVFT, Cerenia, pantoprazole, ampicillin. Coombs test pending. Lab work from last night. This morning, reviewed fresh blood smear: numerous polychromatophils, RBCs exhibit anisocytosis w strongly suspected spherocytes, platelets appear normal in number, microscopic slide agglutination which progressed to macroscopic agg. PCV this morning = 24%

Pale MM

SediVue UA: Free catch, orange, pH 7, USG 1.039, Urine protein 100mg/dL, bilirubin 6 mg/dL, urobilinogen 8 mg/dL. WBC 2/HPF, RBC 1/HPF, Non-Squamous epithelial cells 1-2/HPF, Non-hyaline casts >1/LPF, Crystalline debris

SNAP 4Dx NEGATIVE.

CHEM: Bilirubin total = 23umol/L (0-15)

CBC: RBC =  $3.33 \times 10^{12}/L$  (5.65-8.87), hematocrit = 0.271 L/L (0.373-0.617), hemoglobin = 80 g/L (131-205), MCV = 81.4 fL (61.6-73.5), MCHC = 295 g/L (320-379), Reticulocytes = 187.8 K/uL (10-110), retic hgb = 20.8 pg (22.3-29.6), WBC =  $24.14 \times 10^9/L$  (5.05-16.76), neutrophils =  $18.44 \times 10^9/L$  (2.95-11.64), monocytes =  $2.61 \times 10^9/L$  (0.16-1.12), platelets =  $136 \times 10^9/L$  (148-484), MPV = 15.1 fL (8.7-13.2).

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 5.2 cm in length. The right kidney measured 5.6 cm in length.

The area of the aortic trifurcation was free of pathology.

No overt pathology in the area of the residual prostate.

**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. No overt pathology in the area of the right adrenal gland.

**Spleen**

The spleen exhibited generalized enlargement with symmetrical capsule contour and 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**



<b>PATIENT</b>	The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.
Buckshot McGarrigle	
<b>SPECIES</b>	<b>Gastrointestinal</b>
Canine	The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained minor nonshadowing ingesta/chyme was empty with no signs of ileus, obstruction or foreign material.
<b>BREED</b>	
Shepherd Mix	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.
<b>SEX</b>	Normal visible colon wall layers were present with apparent formed feces in lumen.
MN	<b>Pancreas</b>
<b>AGE</b>	The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.
6yr	<b>Free Abdomen</b>
<b>WEIGHT</b>	No omental masses, overt lymphadenopathy or peritoneal effusion was present.
27.5kg	<b>ULTRASONOGRAPHIC FINDINGS</b>
<b>INTERPRETED BY</b>	<ul style="list-style-type: none"> <li>Splenomegaly with maintained homogeneous parenchyma and symmetrical capsule contour-subjectively benign, hyperplasia/hematopoiesis owing to anemia or potential for incidental splenitis</li> <li>Overtly normal GI tract with mild nonshadowing ingesta/chyme-no evidence of GI mural pathology</li> <li>Sonographically unremarkable liver/gallbladder</li> </ul>
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	
<b>IMAGING PERFORMED BY</b>	<b>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</b>
Alejandro Vargas Lumbreras	No overt evidence of intra-abdominal pathology as an obvious cause of the patient's anemia. Assuming normal clotting status, a screening splenic FNA using a 25g needle could be considered primarily to ensure only benign changes are present. Immune mediate or infectious causes of anemia could be considered. Some or all of the following protocol is suggested empirically. Three view chest radiographs are recommended to rule out occult thoracic pathology.
<b>HOSPITAL NAME</b>	<i>(Note: ensure no underlying neoplasia as IMHA/Evans syndrome can occur as paraneoplastic manifestation especially in lymphoma/round cell neoplasia)</i>
Central Island Veterinary Emergency Hospital	
<b>REFERRING VET</b>	Anemia +/- thrombocytopenia with spherocytes/autoagglutination in dogs and hyperbilirubinemia, bilirubinuria. (NOTE: cats do not get spherocytes in IMHA) Consider Onion/Garlic derivative ingestion if Heinz bodies present.
Dr. Guenther	
<b>INVOICE</b>	<b>Prednisone (K9) Prednisolone (Feline):</b> 2 mg/kg Sid/Bid initially x 3 weeks then attempt taper <b>Aspirin</b> 0.5 mg/kg Sid owing to hypercoagulable state <b>Sucralfate</b> 0.5-1 g po tid dogs, 0.5 g bid cats in slurry <b>Doxycycline</b> if infectious suspected clinically or based on CBC path review: <b>Dogs, Cats:</b> 10 mg/kg p.o. q24h with food or water bolus in cats
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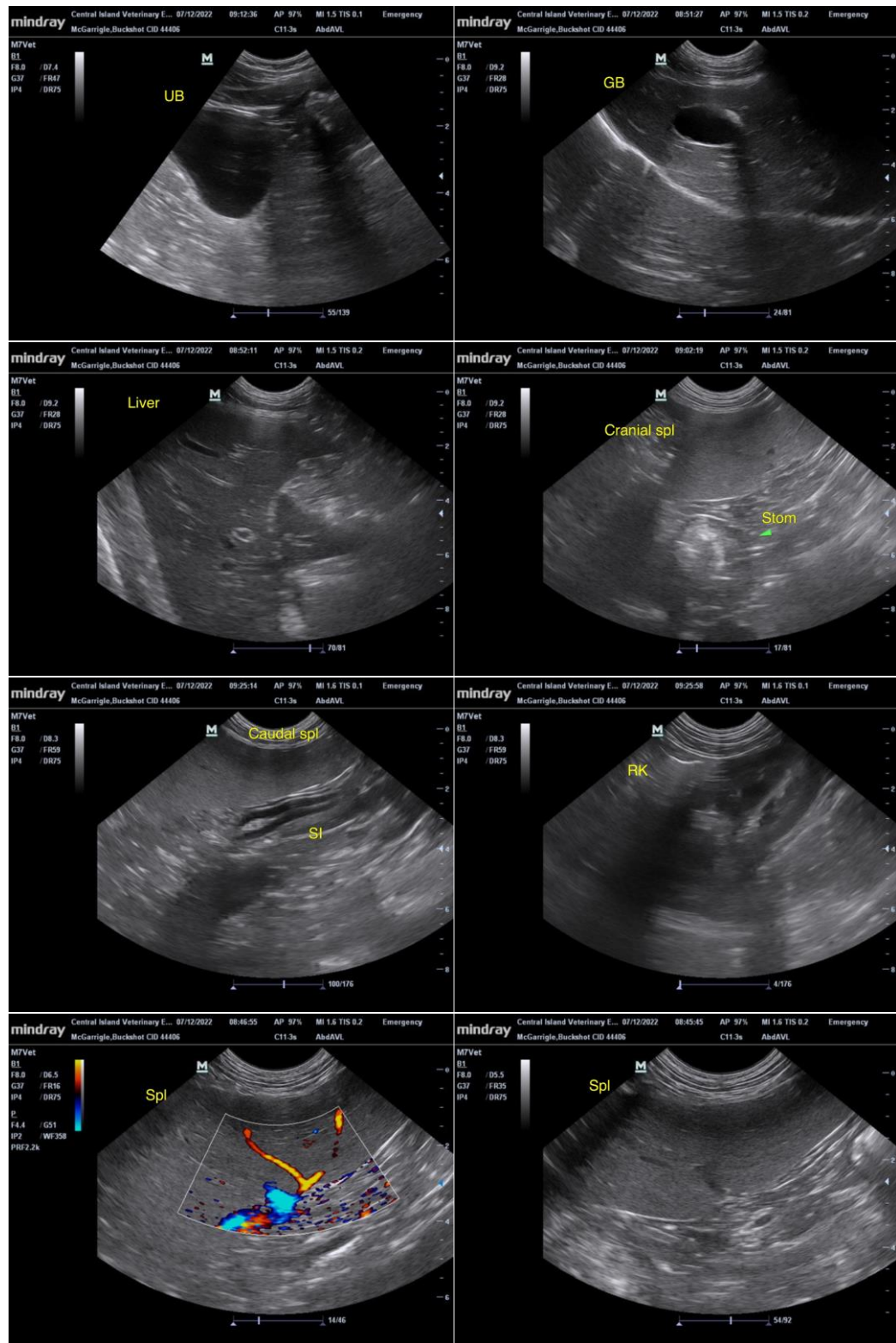
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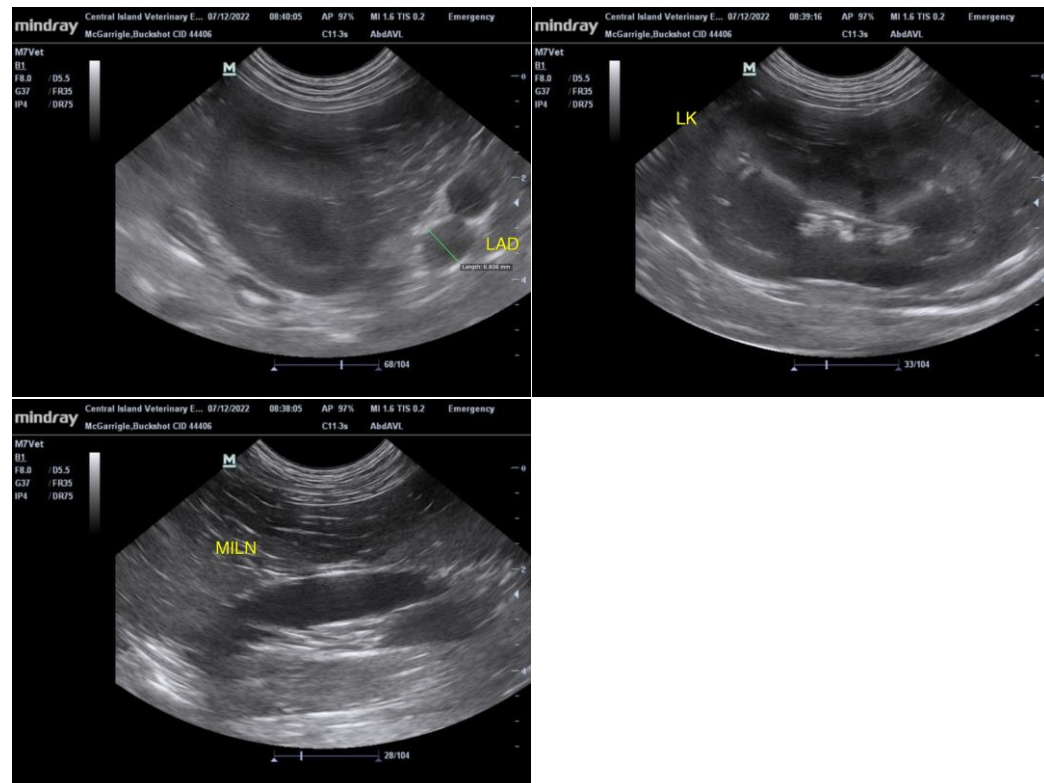
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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