



**PATIENT**

Ella Mifsud

**SPECIES**

Canine

**BREED**

Rottweiler X

**SEX**

FS

**AGE**

8

**WEIGHT**

30 kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Belan

**HOSPITAL NAME**

Aspen AH

**REFERRING VET**

Dr. Sekhon

**INVOICE**

15442

**DATE**

11/9/22

**PRESENTING CLINICAL SIGNS**

Inappetence and lethargy 2 week duration Visible jaundice.

Abnormal PE/Chem/CBC/UA Results: Severe elevation of T bil 343 range 0-15 Mild elevation of ALT and stress leukogram with neutrophilia.

**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. 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 was noted.

The area of the aortic trifurcation was free of pathology.

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 7.1 cm in length. The right kidney measured 8.1 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 0.56 cm width at the caudal pole and 0.48 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.46 cm width at the caudal pole and 0.49 cm width at the cranial pole.

**Spleen**

The spleen exhibited subjective borderline to mild enlargement with areas of subtle capsule asymmetry and generalized parenchyma heterogeneity with normal splenic vascularity. No masses were noted. The spleen may indicate incidental hyperplasia, hematopoiesis, and splenitis, with some degree of mild splenomegaly secondary to sedation possible. Neoplastic criteria is considered unlikely.

**Liver/ Gallbladder**

The liver was normal in size with areas of capsule asymmetry and generalized nonhomogeneous mixed echogenic parenchyma including areas of markedly thickened hyperechoic yet indistinct portal vascular borders. Areas of asymmetrical hepatic capsule contour were present. The gallbladder was non-distended to collapsed in size exhibiting mild hyperechoic to thickened gallbladder walls. Minimal anechoic content was present in the gallbladder lumen. The common bile duct was not definitively visualized.

**Gastrointestinal**

The stomach presented intact wall layering and a normal wall layer ratio with mild to moderate subjective gas distention. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material.



<b>PATIENT</b>	The intestinal walls demonstrated intact wall layering and maintained 1:3 muscularis / mucosa ratio. The mucosa exhibited mild decreased echogenicity with occasional mucosal speckling. A segmental to diffuse ileus pattern consisting of mild fluid accumulation in the intestinal lumen was present without obstruction or foreign material.
Ella Mifsud	
<b>SPECIES</b>	
Canine	Normal visible colon wall layers were present with apparent formed feces in lumen.
<b>BREED</b>	
Rottweiler X	<b>Pancreas</b> Diffuse enlargement of the pancreas with ill-defined, hypoechoic to heterogeneous parenchyma and asymmetrical contour was present. The surrounding omental fat around the enlarged to hypoechoic pancreas was echogenic indicative of reactive change, adhesions, focal peritonitis, or saponification. Regional peripancreatic to perihepatic hyperechoic mesentery and scant to mild volume cranial abdominal free fluid was noted.
<b>SEX</b>	
FS	
<b>AGE</b>	
8	<b>Free Abdomen</b> Evidence of subjective mild isoechoic hepatic lymphadenopathy adjacent to the portal vein was present. No omental masses were noted.
<b>WEIGHT</b>	
30 kg	
<b>INTERPRETED BY</b>	
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	<b>ULTRASONOGRAPHIC FINDINGS</b> <ul style="list-style-type: none"> <li>• Irregular nonhomogeneous liver</li> <li>• Subnormal to collapsed gallbladder with evidence of chronic cholecystitis</li> <li>• Irregular active pancreatitis pattern</li> <li>• Regional perihepatic / peripancreatic peritonitis with scant to mild volume peritoneal free fluid</li> </ul>
<b>IMAGING PERFORMED BY</b>	
Dr. Belan	<b>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</b> Potentially complicated case with possible multiple pathologic etiologies.  The subnormal to collapsed gallbladder size without definitive visualization of the common bile duct was not overtly evident with post hepatic obstructive criteria yet potentially may indicate the possibility of gallbladder rupture and secondary bile peritonitis. Complicating factors may include acute or acute-on-chronic hepatopathy with potential for possible end-stage hepatic disease, given the hepatic presentation in conjunction with only mild elevated ALT, as well as active to possibly significant pancreatitis, while the possibility of hepatopancreatic neoplastic criteria cannot be definitively excluded.
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Dr. Sekhon	Correlation with pending hepatosplenic FNA cytology, as well as ideally and if possible peritoneal effusion analysis, cytology +/- C/S to assess for evidence of bile peritonitis and/or septic abdomen. Lack of evidence of significant inflammatory leukogram may not indicate definitive peritonitis, yet close monitoring of CBC for evidence of increasing inflammation is recommended.
<b>INVOICE</b>	
15442	
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11/9/22	Empirically and pending additional diagnostics, aggressive therapy for pancreatitis / peritonitis with as-needed hepato-gastrointestinal support including broad spectrum aggressive antibiotic therapy, plasma expanders if clinically indicated, and close monitoring would be reasonable. Referral is likely in this patient's best interest.



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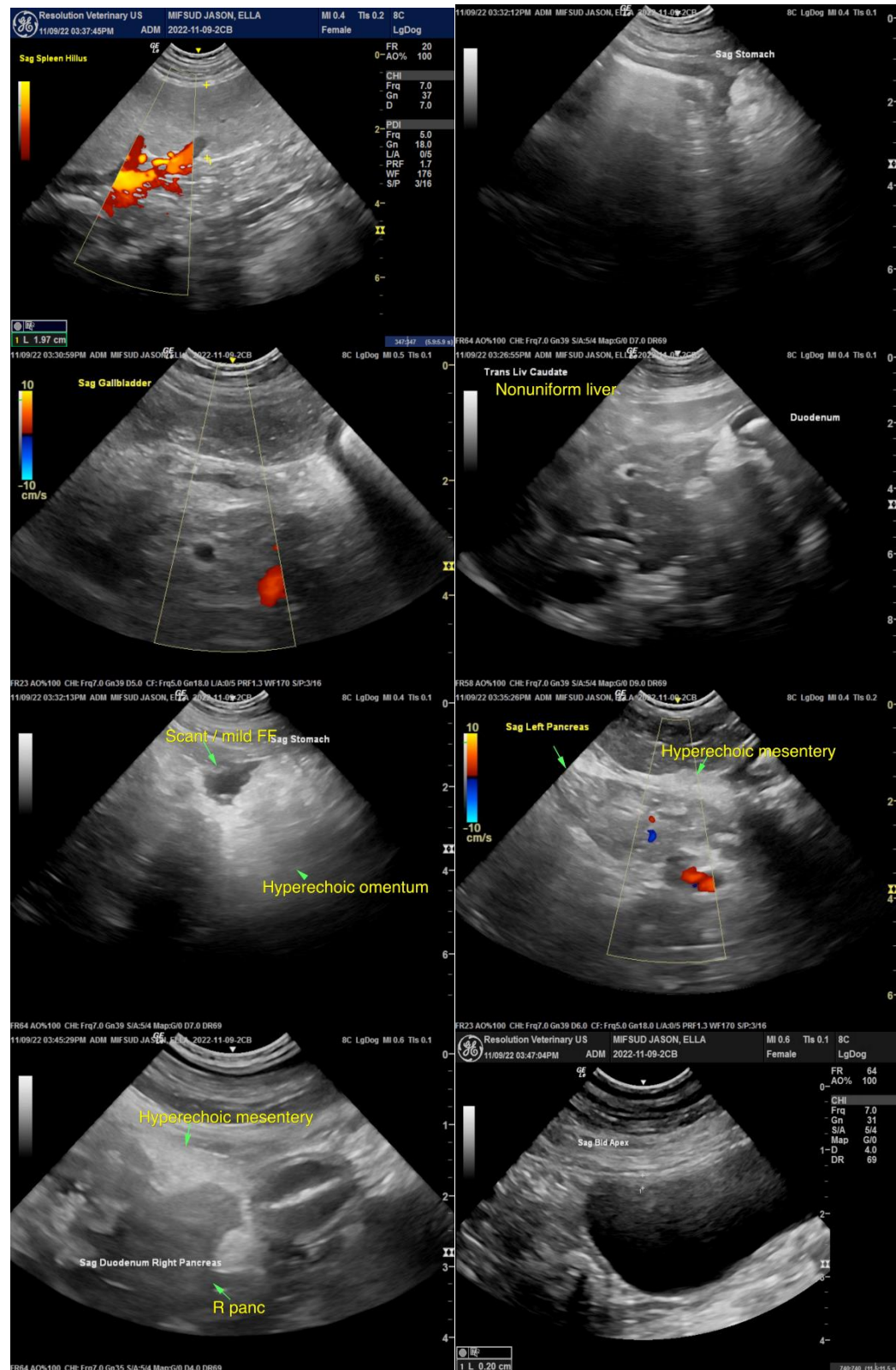
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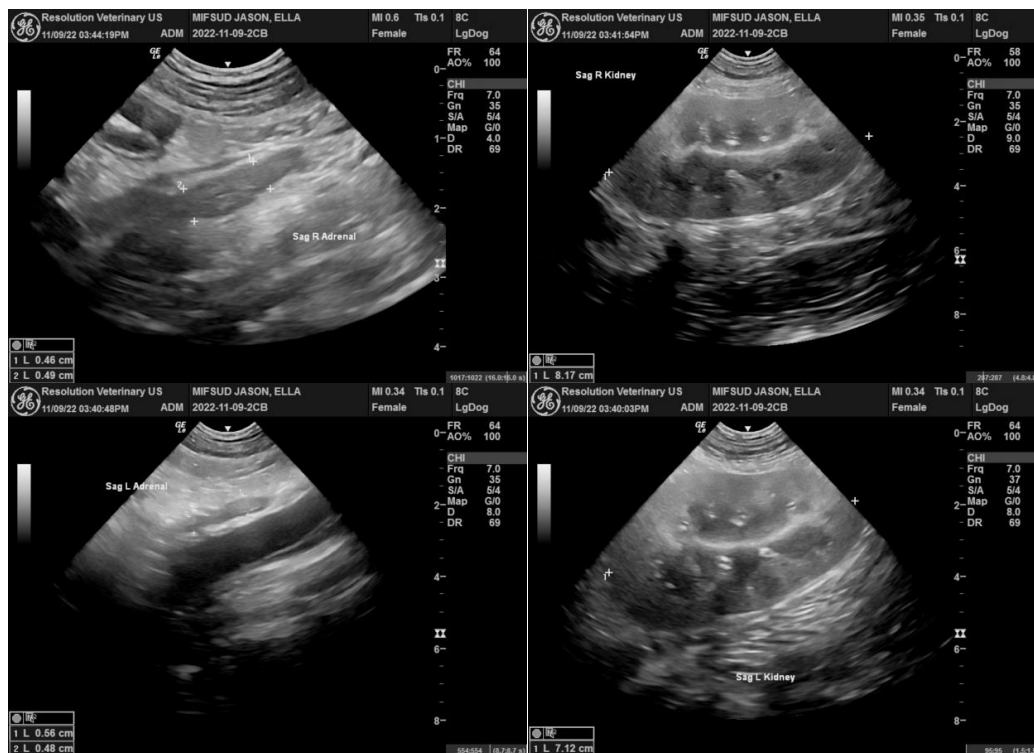
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**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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)**  
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