



**PATIENT**

Mickey ONeill

**SPECIES**

Canine

**BREED**

Jack Russell Terrier

**SEX**

Neutered Male

**AGE**

12 years

**WEIGHT**

26.5 pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr Jaquie Preston

**HOSPITAL NAME**

All Creatures Animal  
Hospital of South Hill

**REFERRING VET**

Dr Sig Nottingham

**INVOICE**

10042ag

**DATE**

02/16/2022

**PRESENTING CLINICAL SIGNS**

History: Pt came in 2 weeks ago with vomiting and not eating with soft stools. elevated lipase, alt, ast, alp. Treated for pancreatitis with little improvement. Pt is not vomiting any longer but is still not eating and is withdrawing from the family. Pt is on Temaril-P long term.

Abnormal PE/Chem/CBC/UA Results: ALT 498 ALP 746 AST 85 Pot 6.0 S/P ratio 28 Unremarkable CBC

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 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 were noted.

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 mildly increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Pinpoint areas of medullary mineral were noted. The left kidney measured 4.8 cm in length. The right kidney measured 4.6 cm in length.

The area of the residual prostate appeared free of pathology.

The area of the aortic trifurcation was free of pathology.

**Adrenal Glands**

The left adrenal gland was indistinctly visualized likely owing to suppression secondary to Temaril P. The left adrenal gland measured 0.59 cm at the caudal pole. The right adrenal gland was not definitively visualized potentially owing to suppression.

**Spleen**

The spleen exhibited generalized heterogeneity with intermittent hyperechoic well demarcated medial parenchymal nodules. The capsule showed minor asymmetrical medial capsule contour.

**Liver**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective moderate generalized parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended in size with thin walls and mild non organized debris noted. The cystic and common bile ducts were normal.

**Gastrointestinal**

The stomach presented wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. The pylorus wall measured 0.56 cm width. Mild gastric distension with a mild amount of retained anechoic fluid was present.

The small intestine presented intact wall layering primarily maintaining a 1:3 muscularis/mucosa ratio with generalized yet mild to indistinct echogenic mucosal speckling to striations. The duodenum wall



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measured 0.38 cm. 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.

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***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.

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***Free Abdomen***

No overt lymphadenopathy or peritoneal effusion was present.

**SEX**

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- Gastroenteritis pattern exhibiting generalized yet indistinct mucosal speckling to striations, potential inflammatory bowel.
- Heterogeneous pancreas.
- Chronic hepatopathy exhibiting generalized parenchymal remodeling.
- Minor gallbladder debris (non-mucocele).
- Heterogeneous splenic parenchyma with intermittent likely benign nodules-nodules suggestive of probable benign myelolipoma, hyperplasia or previous infarcts. No overt evidence of splenic neoplastic criteria was noted and is considered unlikely.

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**ULTRASONOGRAPHIC FINDINGS**

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The liver may indicate age related parenchymal remodeling, chronic vacuolar hepatopathy, chronic active hepatitis/cholangiohepatitis, early fibrosis, cirrhosis or other hepatopathy with neoplasia considered a less likely differential diagnosis. Assuming normal clotting status, hepatic FNA using a 25g needle could be considered for screening cytology. Hepatosupportive medications including Denamarin and Ursodiol may prove beneficial.

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The small bowel speckling to striations are nonspecific yet may be associated with underlying inflammatory enteropathy such as IBD or enteritis with potential emerging PLE thought less likely given normal albumin levels.

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Sonographically the appearance of the pancreas was not overtly consistent with active pancreatitis although low grade to chronic pancreatitis may present essentially sonographically normal. A GI panel to include PLI/TLI/Cobalamin/Folate is recommended for further assessment of the small intestine and pancreas. Given the administration of Tamaril P, occult atypical Addison's would be considered unlikely however further monitoring of electrolyte levels with potential supplementation may be considered. Empirically as needed gastrointestinal support and medical therapy for low grade to chronic pancreatitis would be reasonable.

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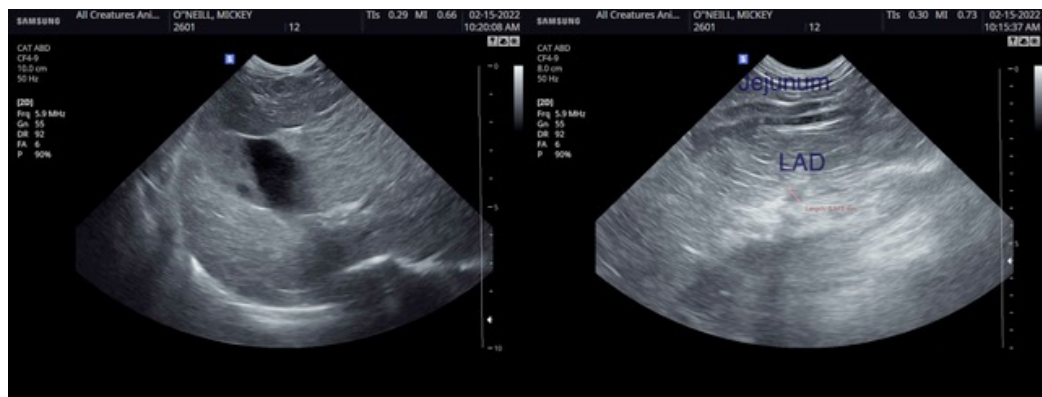
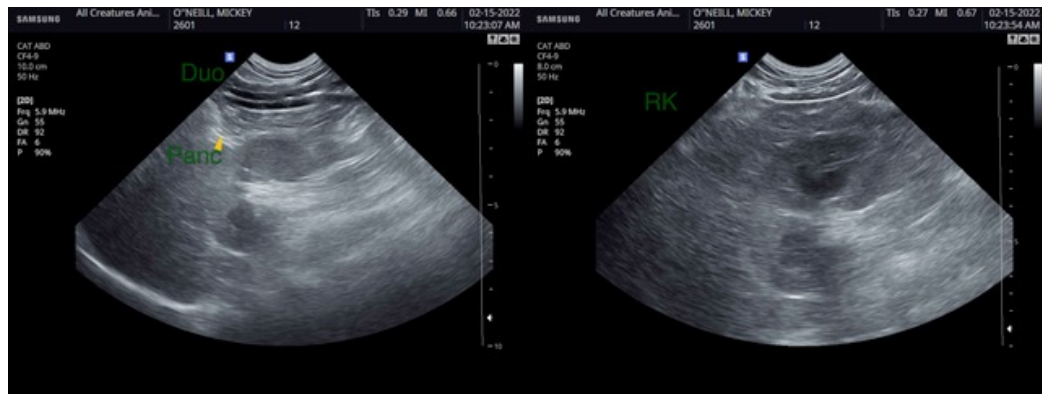
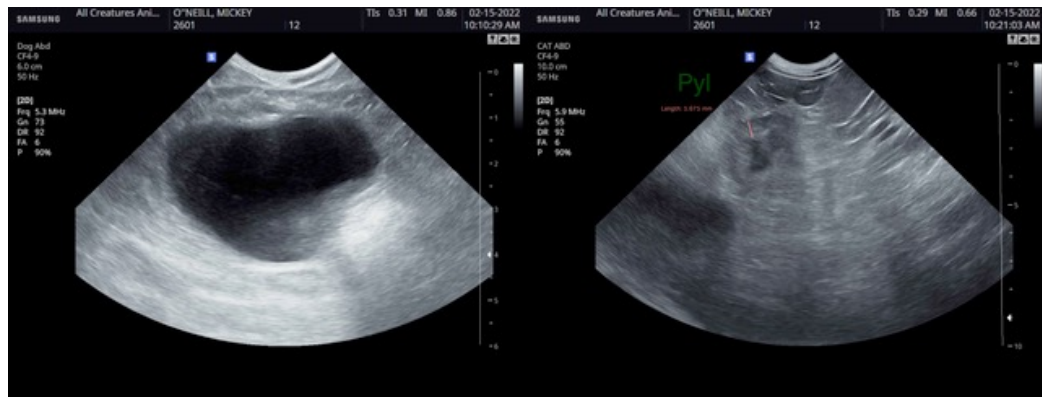
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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**