



**PATIENT PRESENTING CLINICAL SIGNS**

Salem Denardis

History: Presenting complaint: inappetance and vomiting, loose stools, drinking, no known ingestion of fb or toxin, indoor only pet, has been giving camelina oil a source of omega 3 for about 6wks, bought online for arthritis as noticed he's getting slower, o thinks has helped w mobility. BAR, bcs:3.5/5, eent, msk/h/l/urogen: nsf, tense abd but no appreciable organomegaly. cerenia, ampicillin, metronidazole, buprenorphine

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered male

**AGE**

13 years

**WEIGHT**

6.0 kg

Abnormal PE/Chem/CBC/UA Results: elevated hct/hgb (mild to moderate), mild reticulocytosis, wbc wnl alt:293 (12-130); alp:138 (14-111); ggt:6 (0-4).

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2 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 was 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. Minor medullary mineral observed in the left kidney. No evidence of pelvic dilation was present. The left kidney measured 4.0 cm in length. The right kidney measured 4.4 cm in length.

The area of the aortic trifurcation was free of pathology.

**Adrenal Glands**

The left and right adrenal glands were indistinctly visualized yet without overt pathology. The left adrenal gland subjectively measured 0.25 cm width. The right adrenal gland measured 0.44 cm width.

**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**

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 mild to benign parenchymal remodeling. A solitary indistinct spherical subtly hypoechoic to nonhomogeneous nodule was present in the left liver measuring 2.5 cm in diameter. The nodule did not distort the hepatic capsule. 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 with mild congealed hyperechoic debris present in the cranial lumen with potential for emerging mineral. No evidence of gallbladder or peripheral gallbladder inflammation was noted. The common bile duct was not definitively visualized yet was without overt evidence of post hepatic stasis or obstruction. The cystic and common bile ducts were normal.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Crystal Hill

**HOSPITAL NAME**

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Emergency Clinic

**REFERRING VET**

Dr. Lutchin

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**PATIENT** *Gastrointestinal*

Salem Denardis The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material. The gastric body wall measured 0.24 cm.

**SPECIES** The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio with generalized propensity for mildly prominent muscularis and potential mucosal layer. No overt evidence of significant small intestinal mural hypertrophy, loss of intestinal wall layering or overt intestinal masses. The duodenum wall measured 0.24 cm. The jejunum wall measured 0.20 cm. The ileocolic wall measured 0.27 cm.

Feline

**BREED**

DSH

Normal visible colon wall layers were present with subjective formed feces present in the descending colon and semi formed to soft feces subjectively present in the proximal transverse colon.

**SEX**

*Pancreas*

Neutered male

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

**AGE**

*Free Abdomen*

13 years

No overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

6.0 kg

- Inflammatory enteropathy pattern.
- Sonographically unremarkable stomach.
- Hepatopathy exhibiting solitary indistinct nonspecific intraparenchymal nodule.
- Mild gallbladder debris vs emerging gallbladder mineral.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The small intestine exhibited subjective mild mural changes suggestive of inflammatory enteropathy with considerations including acute inflammatory bowel episode if gastrointestinal signs are recent, enteritis or IBD. Potential for occult neoplastic infiltrative enteropathy technically is possible in this case yet thought less likely. Concurrent inflammatory hepatopathy is suspected with considerations for the indistinct to nonspecific hepatic nodule including granuloma, hyperplasia, or hematopoiesis, while the potential for emerging neoplastic nodule cannot be excluded.

**IMAGING PERFORMED BY**

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Assuming normal clotting status an ultrasound guided FNA of the hepatic nodule if accessible and using a 25g needle could be considered for screening cytology as well as assessment for potential parenchymal inflammatory cells.

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Potential for concurrent low-grade pancreatitis could be present yet sonographically normal. Further assessment of the pancreas and the gastrointestinal tract may include A GI panel with PLI/TLI/Cobalamin/Folate is recommended.

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Triad disease may be a consideration in this patient if clinical suspicion for concurrent low-grade pancreatitis or evidence of weight loss is present.

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Empirically, rehydration protocol +/- some or all of the following could be considered with as needed gastrointestinal support

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**Triaditis/Pancreatitis protocol**

Part or all of this protocol may be considered based on your clinical impression of the patient:



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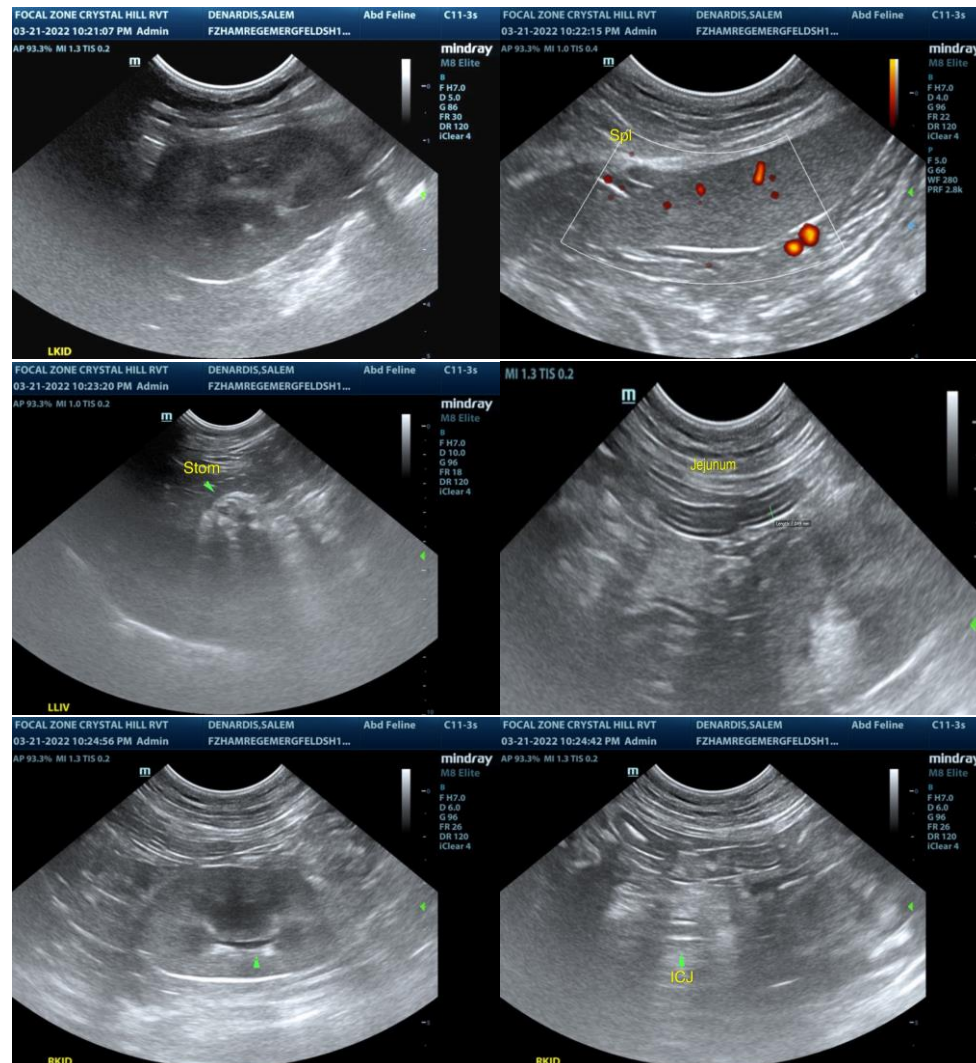
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Recommend pain management when anorexic with **Buprenorphine** (0.01-0.02 mg/kg IM or SC), clinical trial of **Zithromax** (50 mg sid/cat x 10 days, 3 weeks if bartonella +), **Prednisolone** (0.5-2 mg/kg tapering over 1 week to minimal effective dose), and **B12 injections** if weight loss (Cyanocobalamin 250 mcg sub-q once-weekly x six weeks, then every other week for six weeks and then once-monthly, long-term if necessary), **novel-protein or hydrolyzed diet** (*Hydrolyzed diets have been shown to be more effective in dietary intolerance case management compared to hypoallergenic diets*) or the **magical Purina DM** (changing protein source is crucial and may need rotation every 6 months if clinical signs recur) Diet trials is a whatever works phenomenon. If vomiting becomes a persistent issue then endoscopy would be warranted and/or recheck sonogram to assess more emerging disease. One diet does not work for all patients so different trials may be necessary or protein source rotation every 6 months as new sensitivities develop.



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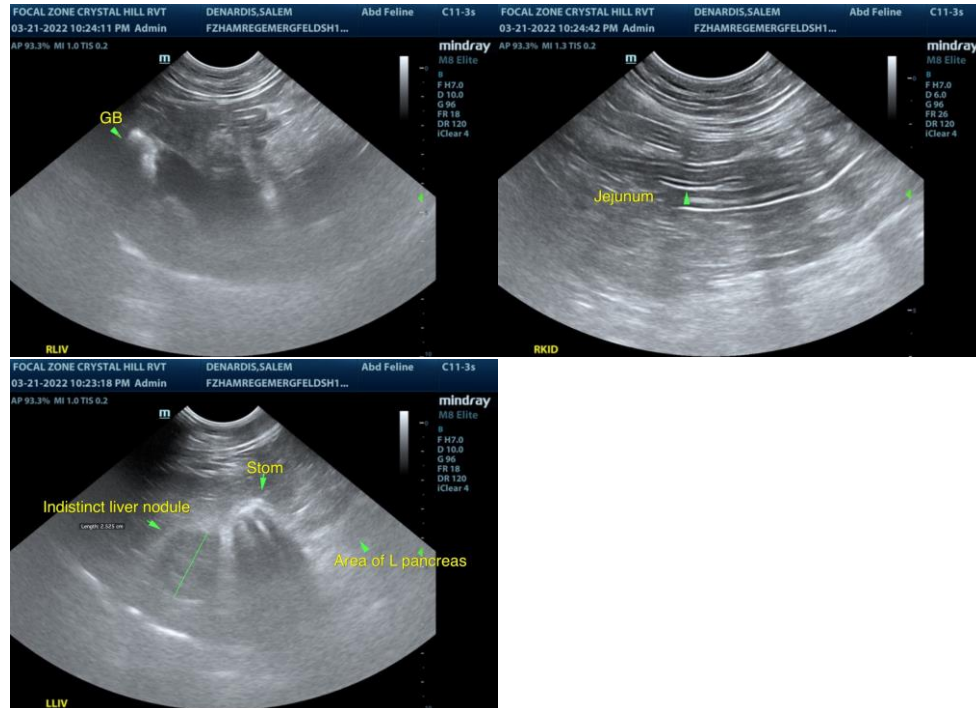
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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