



**PATIENT PRESENTING CLINICAL SIGNS**

Chloe Cantu

History: Presented on 11/24/2021 for 6 seizures; history of very occasional seizures, nothing requiring treatment. One week ago, owner returned from a week-long trip to find pt deteriorated and appearing emaciated. Saw primary care vet on Fri and reports bloodwork mostly normal, mb some mild elev in liver and renal values. Owner felt that Chloe had a UTI though UA did not show bacteria (was dilute though, quiet sed), was started on Clavamox and Cerenia. Owner mentions pt was being treated for pancreatitis. Has also been on prednisolone for 2 years for probable IBD. (0.3 mg p.o. q24h).  
Abnormal PE/Chem/CBC/UA Results: -Emaciated body condition 3/9 -Wt 1kg -hypoglycemia too low to read -nonregen anemia HCT 32% -mild neutrophilia 16.9K -amyl 2500, Lipase 5800 -mild decr TT4 -USG 1.010, trace prot; quiet sed -SDMA 60 (ref 0-14) -BUN 82 (cr 1.2) IVF (w dextrose supp), GI support, glucose monitoring; have not been able to discontinue the glucose but has been stable on 2.5%

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Spayed Female

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

**AGE**

15 years

**WEIGHT**

1 kg

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilatation was present. Slight mineralization was noted in the caudal pole of the right kidney. The right kidney measured 2.55 cm. The left kidney measured 2.38 cm.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Callihan

**Adrenal Glands**

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.39 cm at the caudal pole and 0.49 cm at the cranial pole.

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Animal Emergency  
Care

**REFERRING VET**

Dr. Baker

**Spleen**

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

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**DATE**

11/26/21



**PATIENT** *Liver*

Chloe Cantu The **liver** images submitted revealed subjectively subnormal liver size, but normal contour and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. Canine No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

**BREED**

Chihuahua

**Gastrointestinal**

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The **gastrointestinal tract** revealed minor, non-obstructive, shadowing material noted in the stomach measuring 0.5 cm. There was diffuse, hyperechoic fogging or overlay throughout the small intestine as well as areas of mucosal striations and speckling. This striation + fogging effect appeared to exclusively affect the mucosal layer with the submucosa, muscularis and serosa left in-act. Soft stool was noted in the colon. Reactive mesentery was present associated with the serosa indicative of active inflammation. This is most consistent with protein losing enteropathy/lymphangectasia. Full thickness biopsies or endoscopic-guided biopsies would be ideal to confirm. No obstructive disease or obvious suspicion of neoplasia.

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**Pancreas**

Obscured hyperechoic changes were noted around the **pancreas**. This is suggestive for inflammation.

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**Free Abdomen**

A slight amount of free fluid was noted in the abdomen. Reactive mesentery was noted throughout the midabdomen.

**IMAGING PERFORMED BY**

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**ULTRASONOGRAPHIC FINDINGS**

Diffuse intestinal thickening with soft stool in the colon.

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Mucosal fogging, suggestive for lymphangectasia.

Minor gallbladder polyps, not clinically significant.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Malassimilation of nutrients may be an underlying issue in this patient. The prednisone may be suppressing a more significant sonographic presentation. The amylase and lipase elevation may be deriving from GI tract as well as from the pancreas.

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There was no obvious evidence of neoplasia. Maldigestion panel, three view chest radiographs and full CNS examination is recommended to examine for occult disease that could be responsible for the weight loss. Evaluation for competitive eating environments should also be considered.

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The kidneys do not appear end stage. Acute renal insult is suspected. 72-hour IV fluid protocol and



**PATIENT**

monitoring of the albumin levels is recommended. Insulin to glucose ratio is warranted even though there is no obvious evidence of insulinoma present. These can be extremely small.

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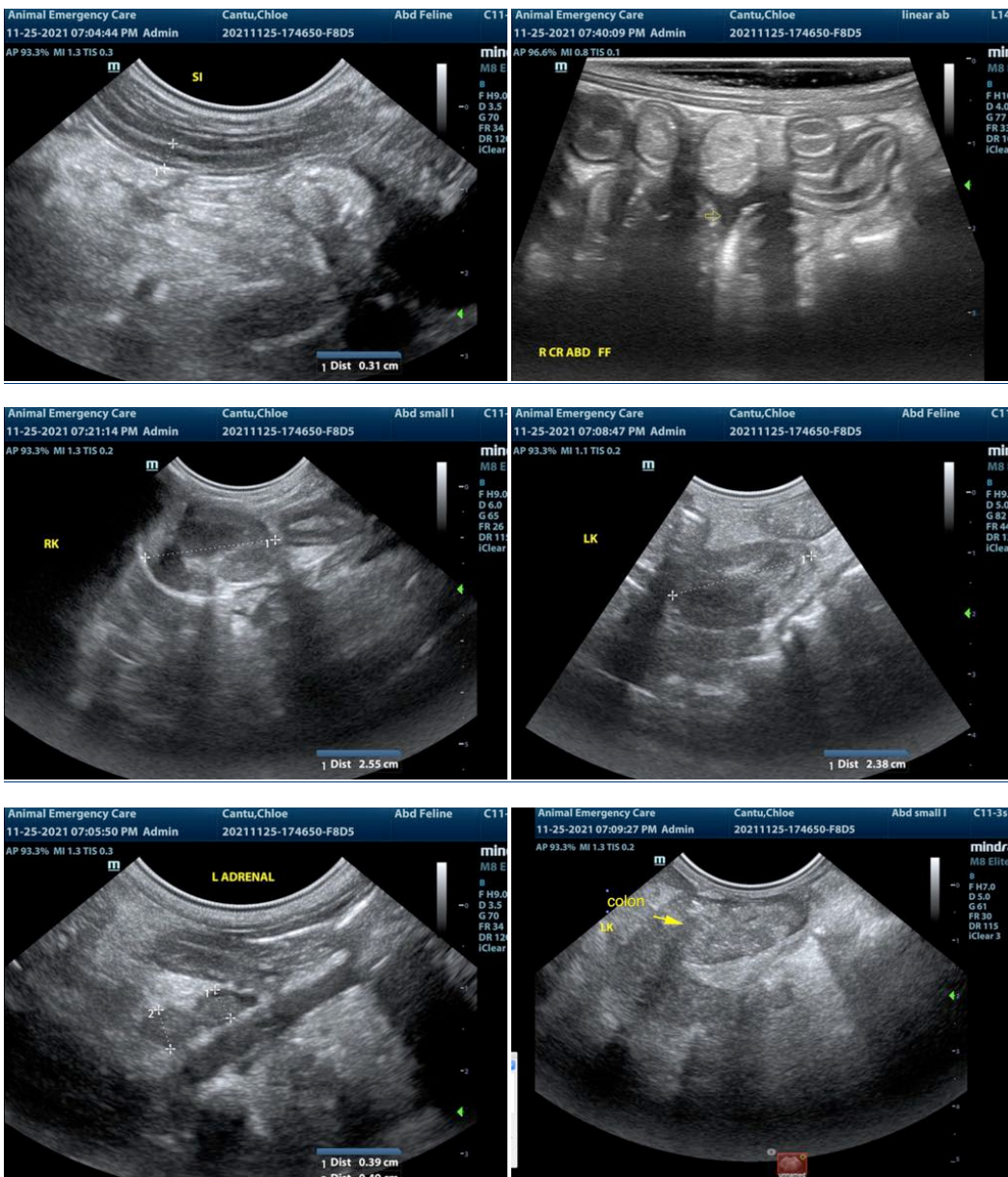
Dr. Baker

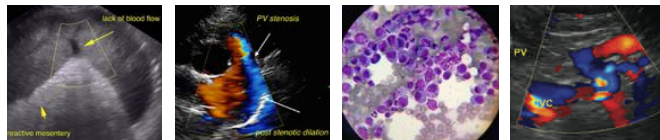
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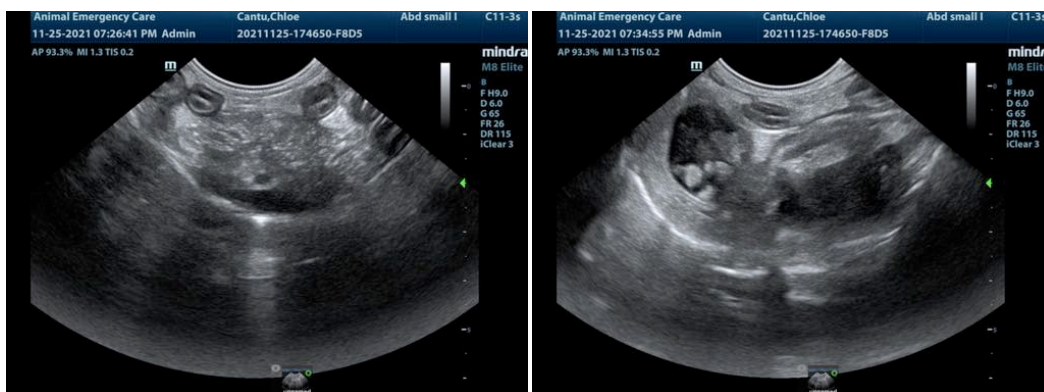
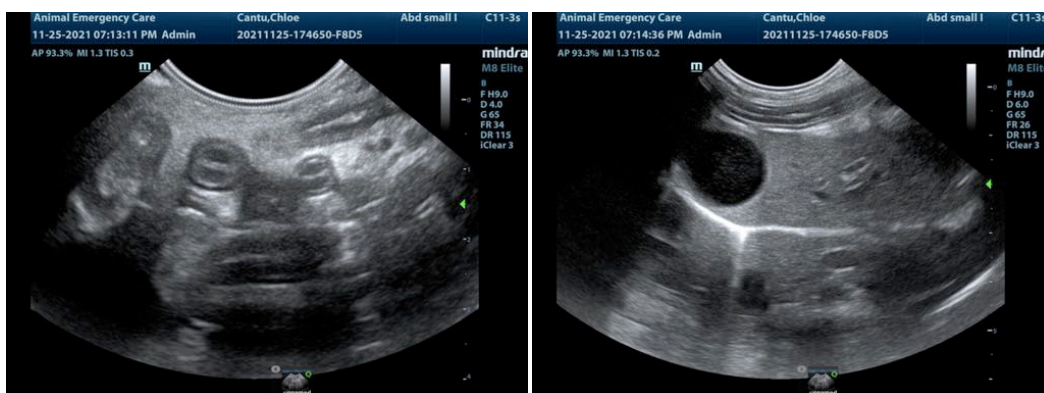
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**PATIENT**

Chloe Cantu

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

**SPECIES**

Canine

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.

**BREED**

Chihuahua

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
info@SonoPath.com

**SEX**

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