



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT**  
Chewy Williams

**SPECIES**

Canine

**BREED**

Mini Poodle

**SEX**

Neutered Male

**AGE**

7 Years

**WEIGHT**

5.92 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Kristin Peterson

**HOSPITAL NAME**

Wilvet Salem

**REFERRING VET**

Dr. Kristin Peterson

**INVOICE**

35919

**DATE**

2/26/22

P has been vt pink/frothy liquid 2-3 times day for 3-4 weeks, O took P to CPC-Mac vet on Monday and got blood work and meds. They were considering Pancreatitis After visit P vt decreased to once a day. Dark urine, no stool. no e or d starting 2 days ago, P coughing since last night, and wheezing on the way to Wilvet. Shallow and rapid respirations. Had dark diarrhea and blood in stool today. P would eat grass, lost 3 pounds at least. QC Has been having some tenesmus recently. Most recent vomiting was just bile like. Has been anorexic since 2/22/22. Had been trying to give water orally as well. Had started to cough last night. Was coughing just when sitting. Has historically had history of eating foreign objects owners unaware. Owner does not feel that he has eaten anything recently. Lab/trends: At companion pet clinic had HCT- 57.1%, Hypoalbuminemia 2.5g/dL, hyponatremia 137 mmol/L, hyperkalemia 5.8mmol/L, hypochloremia 97 mmol/L. Na:K ratio 24 (28-37), elevated amylase 7,564 U/L, lipase, and spec cpL, 4DX neg, fecal test was insufficient amount to run flotation. EPOC at 7pm pH 7.475\*, BE - 5, Na 144, K 3.6, Cl 112, Ca 1.09\*, Lactate 0.83, BUN 7, creat <0.3, Glu 80, HCT 35%\* AFAST - no free fluid, distended stomach w/fluid and several loops of bowel with minimal peristalsis, subjectively thickened mucosa. Labs Pending: ACTH stim S/O:: \_\_ QAR, pink mucous membranes mod dental disease, clear corneas OU, skin/coat clean/free of ectoparasites. IVC left cephalic and patent, ambulatory, neuro normal, abdomen slightly tucked, mild discomfort on deep abdominal palpation. PLN WNL A:: \_\_ Chronic vomiting, lethargy, anorexia - r/o primary GI (foreign body, gastroenteritis, IBD, pancreatitis, cancer, other) vs extra (hormonal- hypoadrenocorticism, systemic illness, cancer, other) P:: \_\_ IV Treatments: LRS 20ml/hr Cerenia 1mg/kg q24h Pantoprazole 1mg/kg q12 Administer slowly over 10 min Ask methadone 0.2mg/kg IV q6h ACTH stim -- pull blood, administer 5mcg/kg cosyntropin IV, pull blood again in 1 hour Monitoring off bland food until midnight - then NPO for additional imaging tomorrow TPR q4h Weigh q8h EPOC q 24h Clinical status update: Chewy regurgitated/vomited several times overnight. Urinated. Quiet. normal vitals. no coughing. Abnormal PE/Chem/CBC/UA Results: Lab/trends: At companion pet clinic had HCT- 57.1%, Hypoalbuminemia 2.5g/dL, hyponatremia 137 mmol/L, hyperkalemia 5.8mmol/L, hypochloremia 97 mmol/L. Na:K ratio 24 (28-37), elevated amylase 7,564 U/L, lipase, and spec cpL, 4DX neg, fecal test was insufficient amount to run flotation. EPOC at 7pm pH 7.475\*, BE - 5, Na 144, K 3.6, Cl 112, Ca 1.09\*, Lactate 0.83, BUN 7, creat <0.3, Glu 80, HCT 35%\* AFAST - no free fluid, distended stomach w/fluid and several loops of bowel with minimal peristalsis, subjectively thickened mucosa.

**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 were noted. Ureteral papillae were normal.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The left kidney measured 4.0 cm. The right kidney measured 4.0 cm.

**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 0.50 cm. The right adrenal gland measured 0.60 cm.



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**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 were noted.

**Liver**

The **liver** presented swollen contour, coarse architecture and mild increased portal markings. The gallbladder wall was slightly echogenic.

**Gastrointestinal**

The **gastrointestinal tract** revealed 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-tact. Reactive mesentery was present associated with the serosa indicative of active inflammation. This is most consistent with protein losing enteropathy/lymphangectasia. Soft stool was noted in the colon. The colonic wall was thickened without loss of detail. Hyperperistalsis noted throughout the GI tract. The stomach was overdistended with chyme. Pylorus was thickened up to 1.5 cm concentrically. Full thickness biopsies or endoscopy guided biopsies would be ideal to confirm. No obstructive disease or obvious suspicion of neoplasia.

**Pancreas**

Ill-defined, heterogeneous **pancreatic** changes noted. Pancreatic lymph node was mildly enlarged at 1.0 cm.

**Free Abdomen**

Reactive mesentery noted throughout the cranial abdomen, including the pancreas.

**ULTRASONOGRAPHIC FINDINGS**

- Severe gastroenteritis/pancreatitis pattern – possible emerging gastric neoplasia.
- Minor regional lymphadenopathy
- Minor cholangitis pattern

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Full thickness gastrointestinal biopsies would be ideal in this patient. Plasma expansion, GI protectants, broad-spectrum antibiotics such as Enrofloxacin/Metronidazole all indicated, as well as pain management. However, endoscopy with mucosal biopsies warranted. Screening for Addison's could be considered. However, the adrenals appear normal. Recheck sonogram in 48 hours to ensure adequate progressive resolution. Strongly recommend endoscopy to obtain mucosal biopsies or full thickness biopsies in this patient.



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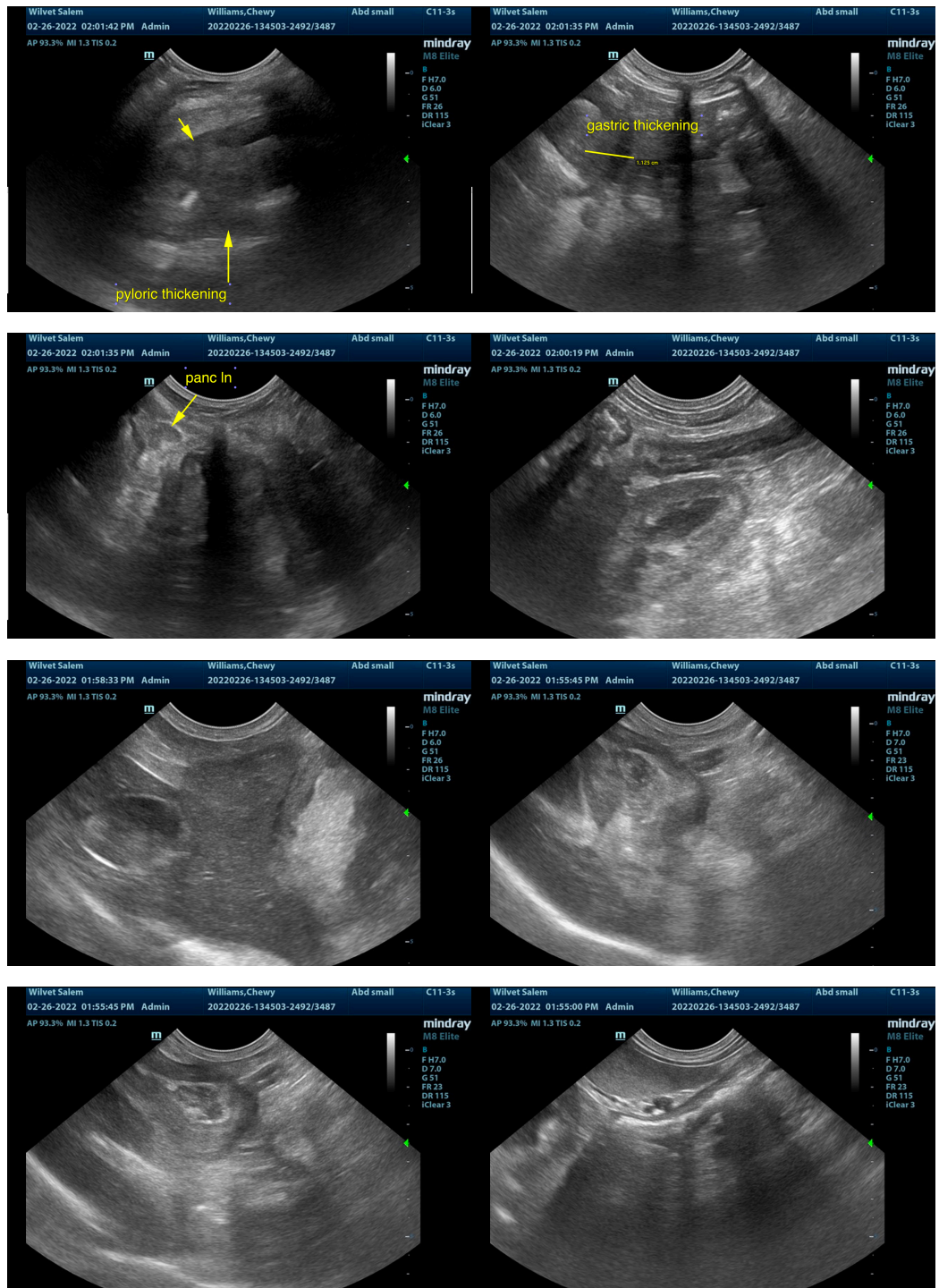
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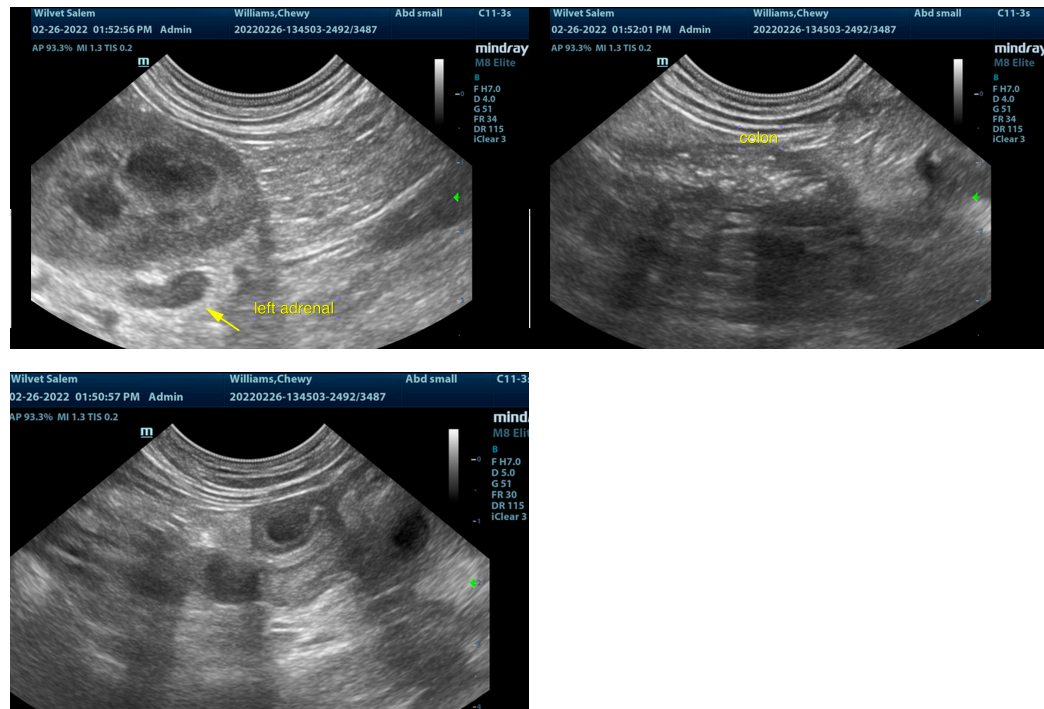
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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