



**PATIENT PRESENTING CLINICAL SIGNS**

Oreo Dahlem Increased vomiting (varies from daily to every 3-4 days). Good appetite in general but small amount of weight loss observed HX of lower airway disease, CKD IRIS 2/4, hypertension, hypokalemia

**SPECIES**

Feline

Abnormal PE/Chem/CBC/UA Results: Aug 2022 Creat 2.7, K 3.3 Current Medications fluticasone propionate, amlodipine, benazepril hcl, cerenia., RenaPlus potassium, Concentrated Breathe Easier B, Concentrated Jin Gui Shen Qi, Tomlin high calorie nutritional gel Radiographic Findings none recent

**BREED**

DSH

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**SEX**

Spayed Female

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

**AGE**

16 Years

Kidneys are bilaterally small, irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. There is no pyelectasia noted. There is a chronic infarct noted in the left kidney. Non-obstructive areas of mineralization/nephroliths are noted in both kidneys. The left kidney measures 3.97 cm. The right kidney measures 3.2 cm.

**WEIGHT**

11 Pounds

**Adrenal Glands**

The right adrenal gland is normal in size (0.94 cm long x 0.53 cm wide), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

The left adrenal gland is normal in size (0.96 cm long x 0.54 cm wide), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**Spleen**

**IMAGING PERFORMED BY**

Sara Hansen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

**Liver**

**HOSPITAL NAME**

West Hills AH

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

**REFERRING VET**

Dr. Remcho

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

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**Gastrointestinal**

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

**DATE**

1/5/23

The visible small intestine demonstrates areas of mildly thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular,



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thick and hyperechoic, without evident loss of layering appreciated. The lumen is empty with no evidence of obstruction or foreign material.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

**Pancreas**

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

**Free Abdomen**

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

**ULTRASONOGRAPHIC FINDINGS**

- **Mild inflammatory bowel disease (IBD) pattern** – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No aggressive lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.
- **Chronic Kidney Disease with small non-obstructive nephroliths noted bilaterally** – This appearance of the kidneys is consistent with chronic kidney disease such as chronic glomerular or interstitial nephritis, chronic pyelonephritis, etc.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

In addition to continued medical management of the chronic kidney disease, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

Ideally, biopsies of the GI tract, being sure to include ileum if possible, are recommended to definitively diagnose and therefore manage the infiltrative bowel disease.

If biopsies cannot be obtained, empirical therapies could include diet change, empirical deworming with a 5 day course of Panacur, cobalamin supplementation (unless not indicated based on gastrointestinal panel results) +/- prednisolone. However, given this patient's chronic kidney disease, prednisolone may be contraindicated. Other supportive therapeutic considerations could include fiber supplementation, especially if this patient suffers from diarrhea as well, and/or a probiotic such as Visbiome or Provable.



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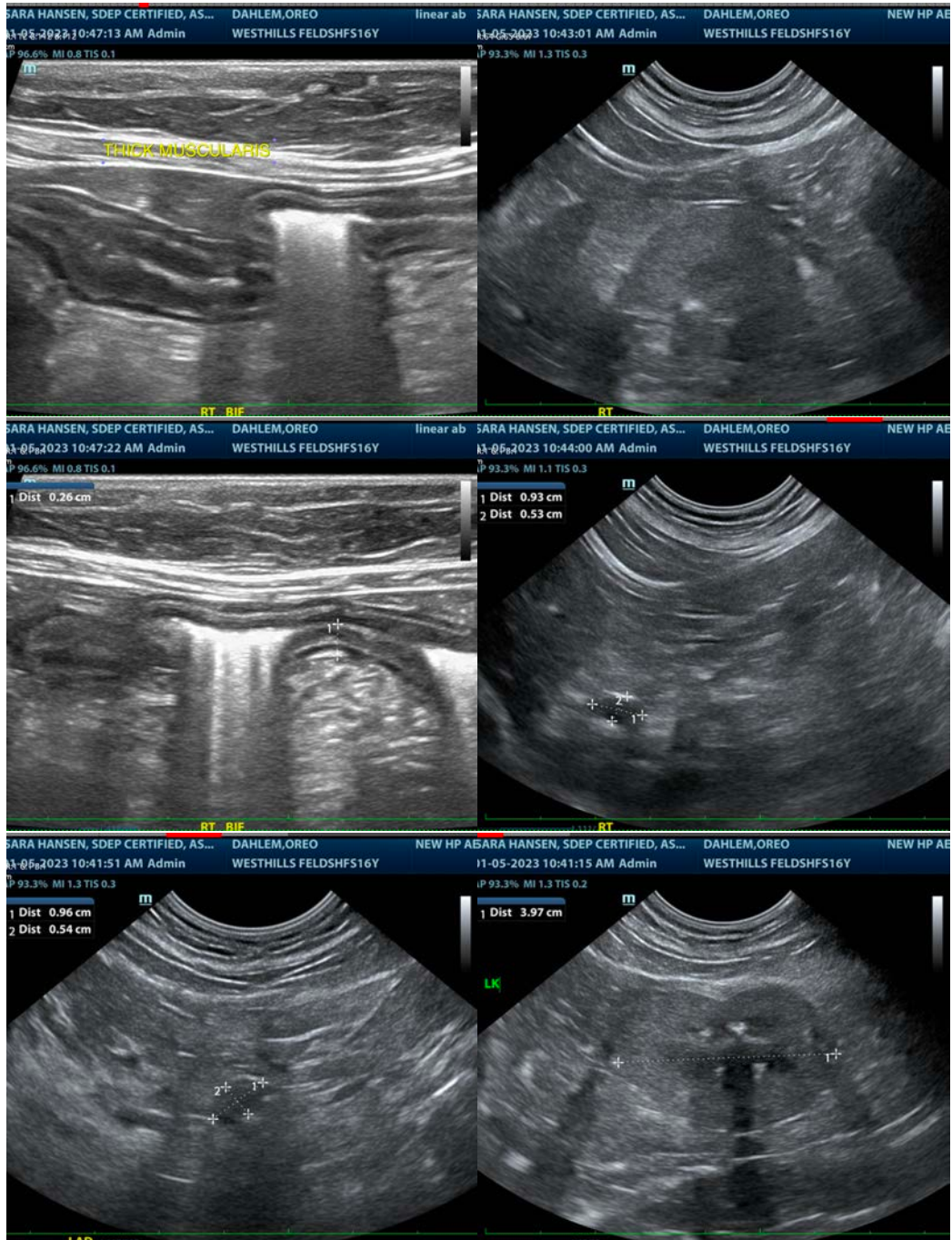
Dr. Remcho

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**PATIENT**

Oreo Dahlem

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.

**SPECIES**

Feline

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**

DSH

**Beth Johnson, DVM, DACVIM**  
Beth.Johnson@sonopath.com

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