



**PATIENT**

Pavlova Marsh

**PRESENTING CLINICAL SIGNS**

History: vomiting food, bile, white foam, decreased appetite even with Cerenia.  
Abnormal PE/Chem/CBC/UA Results: unremarkable

**SPECIES**

Feline

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is adequately filled. The wall is smooth and regular. No abnormalities are present with the trigone or proximal urethra, and there is no evidence of cystoliths, polyps or a mass. A trivial to small amount of free floating sediment is present, most likely composed of mucus, crystalline material and exfoliated cells. The mild amount of debris is likely clinically insignificant given the lack of inflammatory changes to bladder wall.

**BREED**

Domestic Shorthair

**SEX**

Spayed Female

The left kidney measures 3.25 cm (decreased in size (3.80-4.40 cm). The capsule is smooth. Its overall architecture, including the definition of the cortico-medullary junction, are preserved, despite being smaller than normal. There are no signs of nephroliths or pyelectasia. The surrounding mesentery is not hyperechoic.

**AGE**

10 years

The right kidney measures 3.70 cm (mildly decreased in size (3.80-4.40 cm). The capsule is smooth. Its overall architecture, including the definition of the cortico-medullary junction, are preserved, despite being smaller than normal. There are no signs of nephroliths or pyelectasia. The surrounding mesentery is not hyperechoic.

**WEIGHT**

8 lbs

**Adrenal Glands**

The left adrenal gland measures 0.30 cm at the cranial pole and 0.28 cm at the caudal pole and 1.2 cm in length. No abnormalities are noted with the gland's shape, overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

**INTERPRETED BY**

Lisa Carioto, DVM,  
DVSc, Diplomate  
ACVIM

A portion of the right adrenal gland is observed in passing. An accurate measurement could not be obtained, however, no major abnormalities are observed.

**IMAGING PERFORMED BY**

Dr. Roche

**Spleen**

**HOSPITAL NAME**

Fredon AH

The spleen is within normal limits in size, architecture, echotexture, and echogenicity. The capsule is smooth. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified.

**REFERRING VET**

Dr. Roche

**Liver**

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There are no obvious signs of hepatomegaly and its borders are smooth and sharp. The liver is mildly heterogenous with a granular echotexture. It is within normal limits in echogenicity. No abnormalities are observed with the hepatic veins, however, the walls of the portal veins are hyperechoic.

**DATE**

3/29/22

A small amount of echogenic material is present in the gallbladder. The wall is mildly hyperechoic. There are no obvious signs of choleliths or neoplasia. The cystic and common bile ducts are not visualized in full, however, no obvious signs of an obstruction are observed.



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**Gastrointestinal**

**SPECIES**

Feline

A segment of the stomach has a thickened muscularis that is more echogenic than usual. The submucosa is also markedly thickened. The stomach is fluid filled and decreased peristalsis is observed. Two small nodules within the lumen are observed in one particular angle; however, they are most likely rugal folds that are inflamed due to Pavlova's chronic vomiting. The mesentery surrounding the stomach is moderately to markedly hyperechoic.

**BREED**

Domestic Shorthair

The duodenum is thickened at 0.29 cm. There is no loss of definition of the wall layers in the remainder of the intestinal tract; in fact, their appearance seems exaggerated. The ileocecolic junction is also thickened and the surrounding area is hyperechoic. A segment of jejunum has abnormal peristalsis with a loss of definition of the wall layers, in addition to a severely hyperechoic mesentery surrounding the loop of bowel.

**SEX**

Spayed Female

There are no obvious signs of a foreign body or an obstruction.

**AGE**

10 years

**Pancreas**

No overt signs of active pancreatitis are observed. There is no evidence of hyperechogenicity of the surrounding mesenteric fat.

**WEIGHT**

8 lbs

**Other:**

Lymph nodes: No abnormalities are observed.

Abdominal effusion is not visualized.

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DVSc, Diplomate  
ACVIM

**ULTRASONOGRAPHIC FINDINGS**

**IMAGING PERFORMED BY**

Dr. Roche

- The granular echotexture is suggestive of a reactive hepatopathy. The increased echogenicity of the walls of the portal veins may be due to inflammation. There are no obvious signs of neoplasia.
- The presence of sludge in the gallbladder is most likely clinically insignificant; however, cholecystitis remains a differential diagnosis despite the absence of sonographic signs.
- The abnormalities observed with the stomach and duodenum may be secondary to Pavlova's more frequent vomiting episodes in recent weeks, i.e. gastritis of unknown etiology. However, inflammatory bowel disease is more likely with her chronic history of vomiting. Infiltrative disease, such as lymphoma or other round cell tumor, cannot be excluded.

**HOSPITAL NAME**

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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There is a risk that endoscopy and biopsies will not yield a diagnosis due to the lesions being primarily within the submucosa and muscularis. Although more invasive, an exploratory laparotomy will likely yield biopsies of better diagnostic quality. An aerobic and anaerobic culture of the bile are recommended if a laparotomy is performed.

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If further diagnostics are not pursued, empirical treatment for inflammatory bowel disease with corticosteroids is suggested, as well as a hypoallergenic diet, whether hydrolyzed or novel protein, but something that is easily digestible and appetizing. A fiber supplement may be required as hydrolyzed diets tend to be low in fiber.

**SPECIES**

Feline

Analgesia for visceral pain, such as buprenorphine, is suggested, as well as supportive care, +/- subcutaneous fluids.

**BREED**

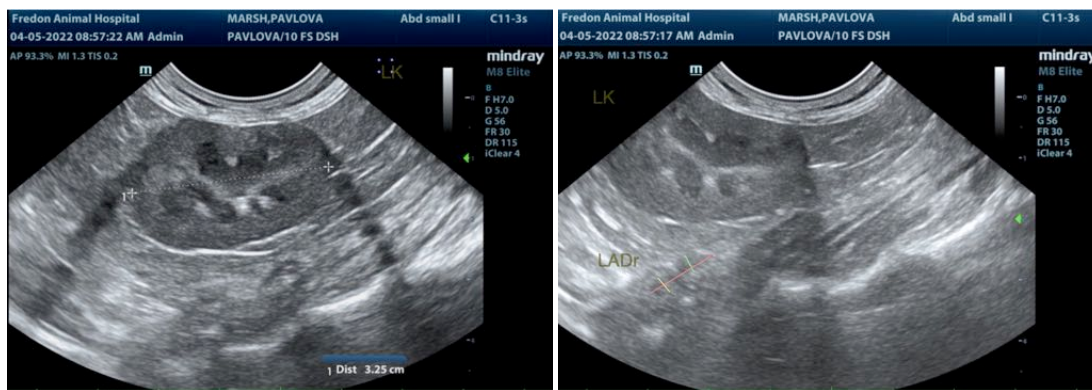
Domestic Shorthair

**SEX**

Spayed Female

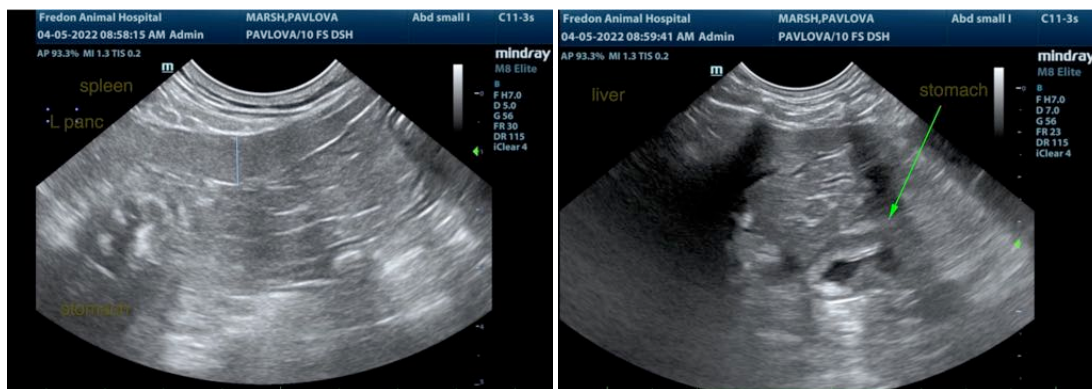
**AGE**

10 years



**WEIGHT**

8 lbs

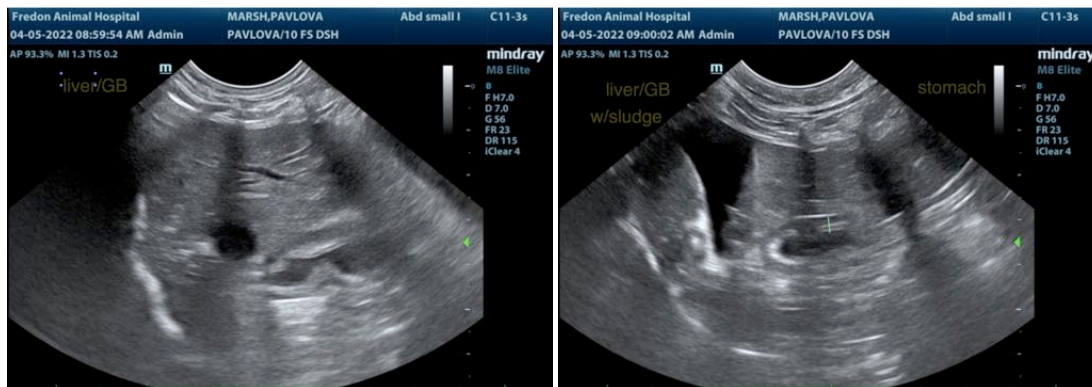


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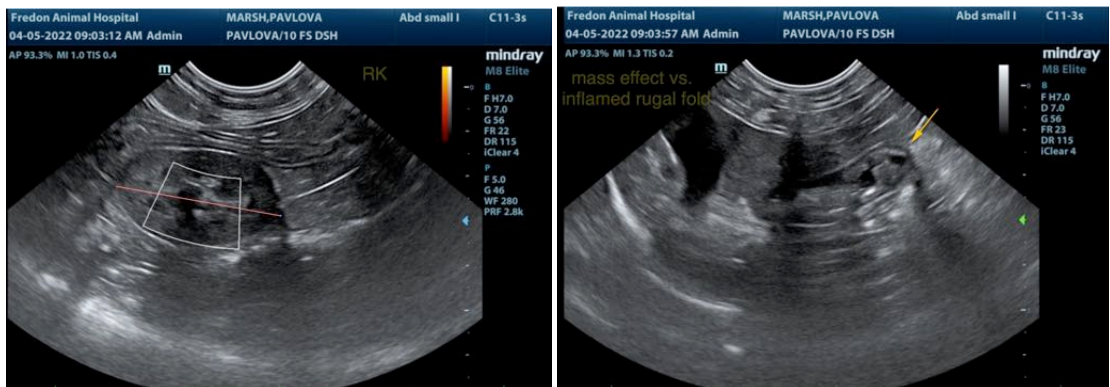
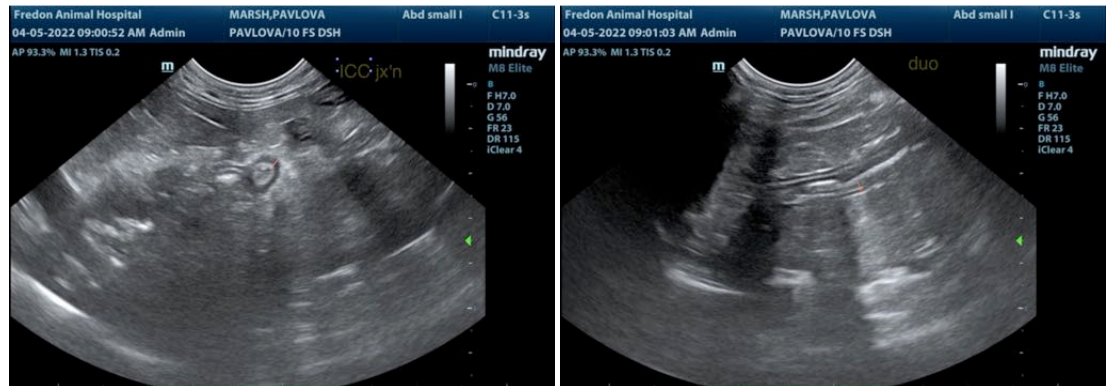
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Lisa Carioto, DVM, DVSc, Diplomate ACVIM

[Lisa.Carioto@sonopath.com](mailto:Lisa.Carioto@sonopath.com)