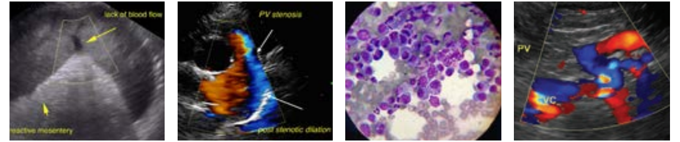


SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT
Xavier Robinson

SPECIES
Canine

BREED
Pomeranian X

SEX
Neutered Male

AGE
12 Years 4 Months

WEIGHT
17.4 Pounds

INTERPRETED BY
Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY
Ashley Whitesell

HOSPITAL NAME
Dickson Animal Clinic

REFERRING VET
Dr. Richard Hovis

INVOICE
46202

DATE
3/28/23

PRESENTING CLINICAL SIGNS

Vomiting daily in the morning for past month, occasionally vomiting before this in the morning for the past year, has recently gotten worse. Refuses to eat z/d

Abnormal PE/Chem/CBC/UA Results: ALT/Alk phos elevated for past year, most recent values ALT 144 alk phos 339; all other values normal

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

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.

Prostate is normal in size, echotexture and echogenicity for a neutered male.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The left kidney measures 4.0 cm. The right kidney measures 4.38 cm. Cortical cysts are present bilaterally.

Adrenal Glands

The right adrenal gland is unable to be well visualized in these images.

The left adrenal gland is normal in size (0.45 cm at the cranial pole and 0.50 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

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

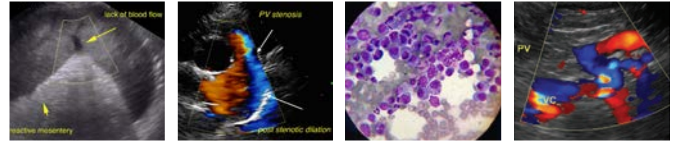
Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

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.

Gastrointestinal

Pyloric mucosal hypertrophy with hyperechoic heterogeneous mucosa and some mucosal remodeling is noted. The wall is thick, measuring up to 1.0 cm. Mural detail is hazy but intact. The lumen of the stomach is empty with no evidence of foreign material or obstruction.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions



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per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

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.

PRIMARY FINDINGS

- **Pyloric thickening and remodeling** – Concerning for pyloric hypertrophy. Infiltrative infectious, parasitic, or inflammatory disease are also possible, and while considered less likely, infiltrative neoplasia can't be definitively ruled out.

- **Hyperechoic hepatomegaly -** This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible but considered less likely.

SECONDARY FINDINGS

- Age related kidney changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

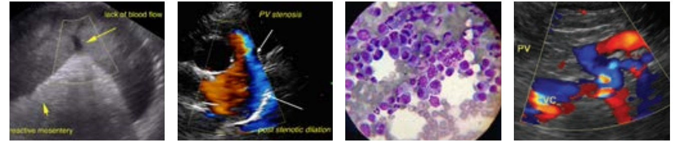
The pyloric wall may be able to be aspirated, and if it can safely be reached and patient's coagulation status is appropriate, a fine needle aspirate is recommended.

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.

In the meantime, supportive/symptomatic empirical medical management of possible pyloric hypertrophy, inflammatory bowel disease, potentially even parasitic disease or helicobacter could be considered with antiemetics, gastroprotectants such as antacids, empirical deworming with a 5-day course of Panacur, a helicobacter treatment course, and given this patient's reluctance to eat z/d, transition to a different hydrolyzed protein diet such as a Purina or Royal Canin equivalent.

Additionally, continuing with the same daily calories but dividing it into smaller, more frequent meals may be helpful.

Pending results of fine needle aspirate (if performed), status with empirical management, etc., ultimately upper GI endoscopy may be necessary for further evaluation of the pylorus as well as biopsies. Ultimately, even surgical correction if improvement can't be reached medically, may be required.



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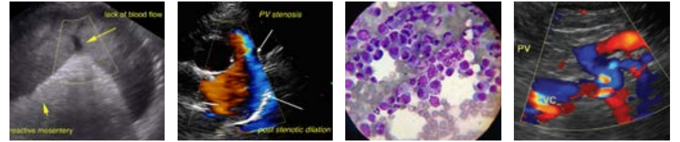

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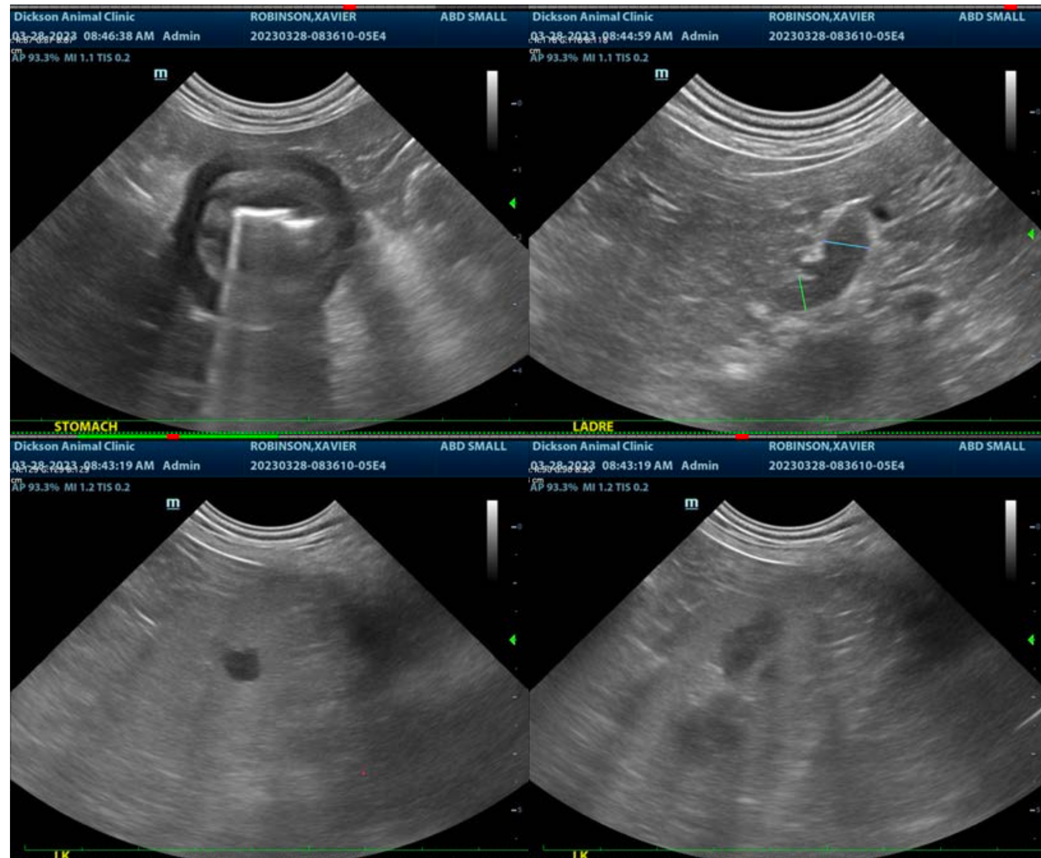

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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