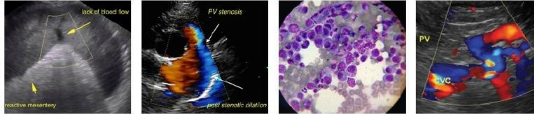

PATIENT

Scruffles Combs

SPECIES

Canine

BREED

Havenese

SEX

MN

AGE

14 years

WEIGHT

15 lbs.

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

HOSPITAL NAME

MountainView AH

REFERRING VET

Dr. Sarah Kalivoda

INVOICE

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DATE

8/5/22

PRESENTING CLINICAL SIGNS

~Patient has a chronic history of burping and acid reflux. ABdominal ultrasounds performed on Jan 2022 showed possible thickening of gastric wall vs neoplasia. Patient has history of chronic cough, has a 2/6 heart murmur, and radiographs performed June 2022 appeared consistent with GERD and possible emerging neoplasia in stomach. During most recent visit on 7/16 Patient presented with profuse diarrhea and recommended repeat ultrsound to evaluate stomach and intestinal tract. ~ Abnormal PE/Chem/CBC/UA Results: LABS: ALT 304 (10 - 125 U/L) Pancreatic Lipase Immunoreactivity Fasting 289 µg/L ≤200--------- RADS from 6/3/2022: Conclusions: 1. Redundant tracheal membrane may represent tracheal collapse. DDx: concurrent mainstem bronchial collapse. 2. Age-related pulmonary changes. DDx: mild allergic/inflammatory bronchitis. Less likely, infectious bronchitis. No evidence of pulmonary metastatic disease or intrathoracic lymphadenopathy. 3. Mild compensated left sided cardiac disease such as myxomatous mitral valvulopathy. 4. Splenic lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative disease, or normal variant splenic size. 5. Soft tissue opacity within the pylorum. DDx: mucosal inflammation or hypertrophy, mural lesion, hematoma. Less likely, neoplasia. Correlate with clinical signs. 6. Esophageal reflux. DDx: secondary to gastritis or pancreatitis. 7. Mild hepatic enlargement secondary to metabolic, inflammatory, or infiltrative disease. 8. Multifocal thoracolumbar intervertebral disc degeneration and disease (as enumerated above) with or without spinal or nerve root impingement. Correlate with neurologic exam results.~

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

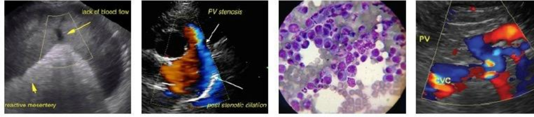
The area of the residual prostate was free of overt pathology.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and moderate loss of corticomedullary symmetry and definition expected for the age of the patient. Both kidneys exhibited mild pyelectasia slightly more prominent in the left kidney. The left kidney measured 4.0 cm in length. The right kidney measured 4.3 m in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.65 cm width at the caudal pole and 0.49 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.37 cm width at the caudal pole and 0.57 cm width at the cranial pole.



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Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

Liver/ Gallbladder

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented intact yet mildly prominent wall layering in the fundus and gastric body extending into the area of the antrum and pylorus. Previously noted subjectively static pyloric mural to mucosal lesion measuring approximately 1.4 cm in diameter was present. The lesion was not obstructive to pyloric outflow.

The small intestine presented intact yet generalized prominent to mildly thickened wall layering exhibiting segmental to generalized mucosal fogging to indistinct hyperechoic mucosal striations. The small intestinal wall width measured 0.46 cm.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

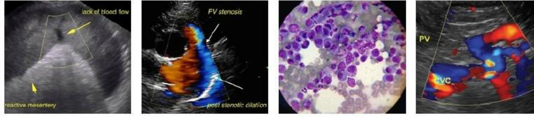
The parenchyma of the pancreas was mildly hyperechoic to adjacent omental fat with diffuse parenchyma remodeling. The capsule of the pancreas was mildly asymmetrical in contour without evidence of peripancreatic inflammation. These changes may suggest chronic inflammation, fibrosis, or saponification if previous history of pancreatitis. No overt signs of pancreatic neoplasia.

Free Abdomen

Intermittent, mildly prominent mesenteric nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a subjective normal width: length ratio (<0.5). An example lymph node measured 0.52 cm diameter. No free fluid was noted.

ULTRASONOGRAPHIC FINDINGS

- Chronic subjectively mild gastritis pattern with static pyloric lesion/polyp
- Chronic enteropathy exhibiting segmental to generalized mucosal fogging to hyperechoic striations - suspect chronic inflammatory enteropathy
- Mildly hyperechoic pancreas - mild pancreatic fibrosis vs. chronic pancreatitis



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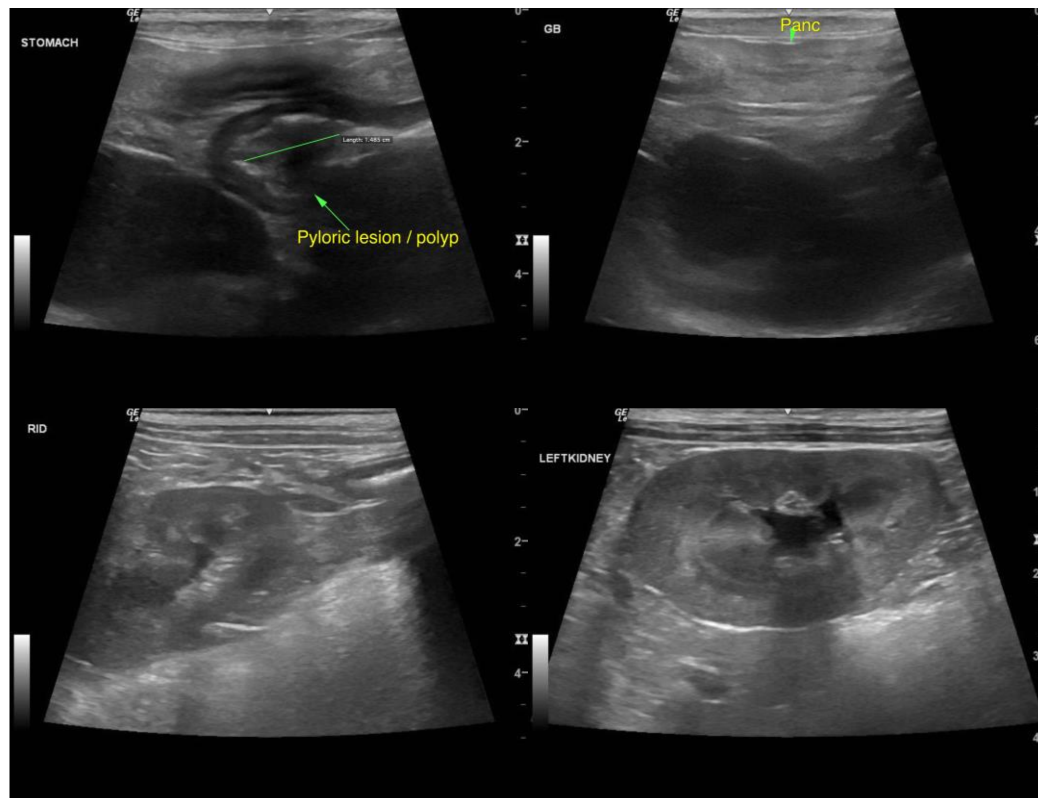
- Low-grade hepatopathy - benign
- Moderate chronic renal changes with mild bilateral pyelectasia
- Intermittent subjectively benign / reactive, mildly prominent mesenteric lymph nodes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The previously noted pyloric lesion appears to be static in appearance compared to the previous study and without evidence of progression, likely indicative of a benign process such as focal mucosal hyperplasia or likely polyp. Neoplastic criteria is considered unlikely. Continued potential for IBD vs. protein-losing enteropathy if evidence of decreased albumin levels. If not recently done, an assessment of cobalamin and folate levels Is recommended.

Empirically, a limited antigen or hydrolyzed diet trial with potential long-term dietary therapy, prophylactic deworming (Panacur 50 mg/kg SID x 5 consecutive days with repeat protocol in 3 weeks even if fecal testing is negative), high colony count probiotic (Proviable or Visbiome), antibiotic trial and as needed gastrointestinal support, which may include smaller more frequent feedings and gastroprotectants with assessment of clinical response would be reasonable. Endoscopic intestinal biopsies could be considered if GI signs progress / persist despite empirical therapy.

Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.



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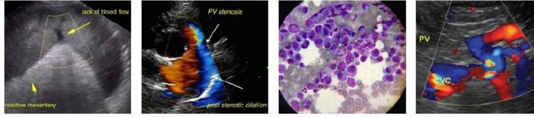

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com