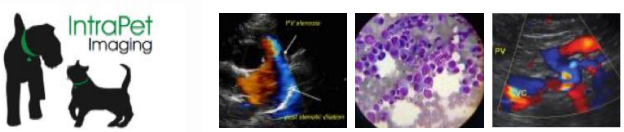
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

11.27.22

PATIENT

Molly Wade

SPECIES

Canine

BREED

Poodle

SEX

Spayed Female

AGE

2009

WEIGHT

23.2 lbs

INTERPRETED BY

Andrea Nicastro, DMV, Diplomate DACVIM (Small Animal Internal Medicine)

HOSPITAL NAME

Animal EH

REFERRING VET

Dr. King

INVOICE

11987

PRESENTING CLINICAL SIGNS

Presenting Complaint: Diarrhea. Vomiting. Unusual swallowing. Twitching. Chronic diarrhea. Poor appetite. Low protein and low albumin. Abnormal xrays- dilated colon; dilated stomach with material in it. Twitching/rubbing at face.

Assessment: Discussed acute vomiting-- suspect the possible diet change-- but cannot rule out fb, has moderate ingesta in the stomach-- recommend IVF and repeat.

Current Medications: Vitamin B12 1000mcg/mL Injection (Per mL) 0.5 Metoclopramide 5mg/mL Injection (Per mL) 0.5 Diphenhydramine 50mg/mL Injection (Per mL) 0.5 Pantoprazole (Protonix) 40mg/vial Injection (Per mL) 2.5

Lab Results: Attached.
Albumin 1.2. Globulin 1.8. Calcium 3.4. USG 1.029. No proteinuria. Inactive sediment.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

Imaging Performed By: Rachel Brilhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The left kidney is normal size (4.78 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. A few small nonobstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (4.55 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.53 cm at cranial pole) (0.56 cm at caudal pole) (1.90 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal size (0.54 cm at cranial pole) (0.61 cm at caudal pole) (1.83 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.43 cm in width at the level of the hilus) with a normal capsular contour. The

parenchyma is mottled in appearance. A few small, ill-defined myelolipomas are observed in the region of the hilus. Splenic vasculature is normal.

Liver

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative, or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.

The gall bladder is moderately distended. The wall is mildly thickened (up to 0.26 cm), hyperechoic and irregular. A small to moderate amount of aggregated, echogenic, partially dependent to suspended debris/sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is not distended. The gastric wall in thickened region of the fundus is thickened (up to 1.46 cm) with suspected loss of the normal layering pattern. The remaining gastric wall is subjectively thickened. However, this is difficult to determine due to rugal folds. The pyloric outflow tract is patent. The small intestinal lumen is segmentally fluid-distended. The small intestinal wall is normal to mildly thickened (up to 0.46 cm) with retention of the normal layering pattern. The ileocecocolic junction is normal. The colonic wall is normal to mildly thickened (up to 0.41 cm) with apparent retention of the normal layering pattern. There is no obvious evidence of an obstructive pattern.

Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

The mesentery throughout the abdomen is mildly hyperechoic. Trace free fluid is observed. A 1.26 cm sublumbar lymph node is visualized.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Given the patient's clinical history and sonographic gastrointestinal changes, a protein-losing enteropathy is suspected. Top differentials include infiltrative neoplasia (i.e., lymphoma, particularly with regard to the gastric wall), inflammatory bowel disease, lymphangiectasia, infectious/parasitic disease, other.
- The gall bladder wall changes are most consistent with cholecystitis. The gall bladder sludge pattern is suggestive of an emerging mucocele. However, cholestasis or fasting cannot be completely excluded.
- Diffuse peritonitis, likely secondary to bowel pathology

Secondary Findings

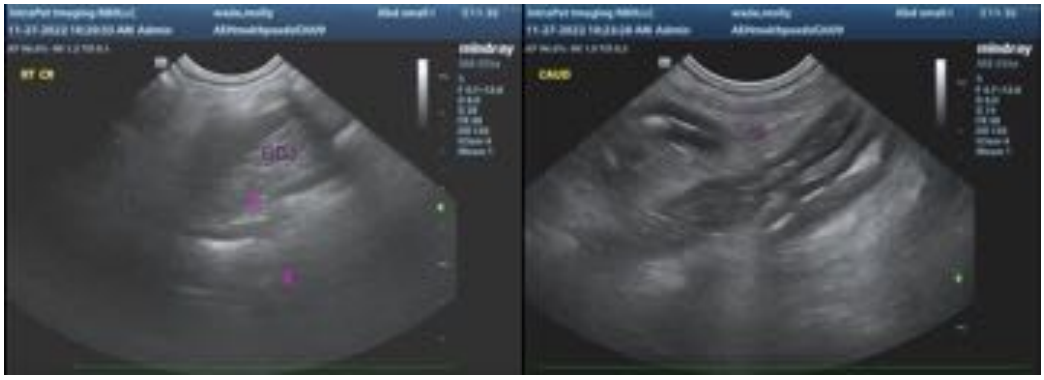
- Bilateral chronic, age-related renal changes with nonobstructive nephrocalcinosis
- The splenic parenchymal changes trend toward the benign (i.e., lymphoid hyperplasia, extramedullary hematopoiesis, or similar) with a lower possibility of emerging neoplasia.
- The prominent sublumbar lymph node is likely reactive.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Fecal evaluation for ova and Giardia
- Malabsorption panel, including serum cobalamin and folate, TLI and PLI
- Ultimately, gastrointestinal biopsies (i.e., endoscopic or surgical) would be necessary to get a definitive diagnosis. Three-view thoracic radiographs should be performed prior to any anesthetic event.
- To evaluate for other concurrent causes of hypoalbuminemia, consider pre-and postprandial serum bile acids and a resting cortisol level.
- Other diagnostic/therapeutic considerations include:

    1. Fine-needle aspirate of the gastric wall if clotting status is appropriate. A 25-gauge needle should be used.
    2. Given the gall bladder changes, Ursodeoxycholic acid (Ursodiol) at 10-15 mg/kg once a day is recommended. Serial sonographic monitoring (e.g., every 6-8 weeks) of the gall bladder is recommended to assess for progression to a fully-formed mucocele.

- Regarding the hypoglycemia, an ionized calcium is recommended. Calcium supplementation may be warranted, particularly given the patient's clinical signs (twitching, facial rubbing).



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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com