IMAGING PERFORMED BY

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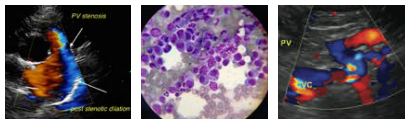

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE
6/7/22

PATIENT
Doodle Geier

SPECIES
Feline

BREED
Domestic Longhair

SEX
Spayed Female

AGE
2/12/19

WEIGHT
9.7 lbs

INTERPRETED BY
Lisa Carioto, DVM, DVSc, Diplomate ACVIM

HOSPITAL NAME
Parkville AH

REFERRING VET
Dr. Suter

INVOICE
30901

PRESENTING CLINICAL SIGNS

5/11/22- weight loss, frequent vomiting. Lost 0.7lbs.
Current Medications: Cerenia 4mg PRN for vomiting, Methimazole 5mg BID transdermal since 1/2021.
Lab Results: 5/11/22- CBC/Chem- BUN 55, T4 1.2.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Andi Parkinson, BS, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is adequately distended. The wall is smooth and regular. No abnormalities are present with the trigone or proximal urethra. A small amount of free floating and aggregated sediment is present, however, there is no evidence of cystoliths, polyps or a mass.

Kidneys

The **left** kidney measures 3.35 cm (3.80-4.40 cm). The capsule is smooth. Its overall architecture, including the definition of the cortico-medullary junction, is preserved. There are no signs of nephroliths or pyelectasia. The surrounding mesentery is not hyperechoic.

The **right** kidney measures 4.11 cm (3.80-4.40 cm). The capsule is smooth. Its overall architecture, including the definition of the cortico-medullary junction, is preserved. There are no signs of nephroliths or pyelectasia. The surrounding mesentery is not hyperechoic.

Aortic bifurcation/trifurcation

No abnormalities observed.

Adrenal Glands

The **left** adrenal gland measures 0.34 cm in diameter. No abnormalities are noted with the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

The **right** adrenal gland is not visualized, however, the surrounding vasculature and mesentery are unremarkable.

Spleen

The spleen is within normal limits in size 8,8 mm (normal = 10 mm), echotexture, and echogenicity. The capsule is smooth. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified.

Liver

There are no obvious signs of hepatomegaly. The liver's borders are smooth, but mildly rounded. It is Homogeneous, but diffusely hyperechoic, i.e. it is isoechoic to the falciform fat. Focal lesions are not observed and no abnormalities are observed with the hepatic vessels.

The gallbladder (GB) wall is mildly thickened, measuring 1.5 mm, and hyperechoic. A small amount of echogenic material is present within the GB. The portions of the cystic and/or common bile ducts observed are not dilated or tortuous, i.e. there are no signs of an obstruction.

Gastrointestinal

A moderate amount of gas is present in the lumen of the stomach. The gastric wall is within normal limits in thickness and the wall layers are well defined. No obvious abnormalities are observed with its peristalsis.

Wall thickness of the small intestines varies between the normal reference range to high normal/mildly thickened (0.27 cm). Although the definition of the wall layers is preserved, fogging of the mucosa is present and the muscularis is more prominent to thicker than usual. No obvious abnormalities are observed with the ileo-cecal-colic junction. Abnormally dilated loops of bowel are not observed.

The colonic wall is not thickened and mural detail is considered normal. Formed stools are present within the colon.

Pancreas

No overt abnormalities are observed with the architecture, contours, echogenicity or echotexture of the pancreas. There is no evidence of hyperechogenicity of the surrounding mesentery, i.e., signs of active pancreatitis are not present.

Other

Lymph nodes

Mesenteric lymph node, which is mildly enlarged 0.58 cm in diameter x 1.17 cm in length. Its margins are mildly irregular. Hyperechogenicity of the surrounding mesentery is present.

Abdominal effusion is not visualized.

ULTRASONOGRAPHIC FINDINGS

- **Gastrointestinal tract:** The intestinal abnormalities are highly suggestive of inflammation, which may be associated with a chronic enteropathy, such as inflammatory bowel disease and food intolerance. Inflammation secondary to chronic vomiting may also be playing a role. Neoplasia is considered less likely, but cannot be excluded, for example, lymphoma or other round cell tumour.

- **Lymph nodes:** Very mild lymphadenomegaly. Reactive lymphadenomegaly is the most likely diagnosis based on the appearance and size of the lymph nodes.

- **Liver:** Hepatic lipidosis may be present. However, cholangitis/cholangiohepatitis and cholestasis must also be considered given the appearance of the gallbladder.

- **Gallbladder**: Cholecystitis with a possible secondary suppurative component is suspected.

- **Urinary bladder**: The free floating sediment is likely clinically insignificant given the lack of inflammatory changes to the bladder wall, however, findings should be correlated with clinical signs and a urinalysis.

- **Pancreas**: Although much less likely, intermittent episodes of pancreatitis cannot be excluded despite the absence of sonographic abnormalities.

- *Concomitant IBD, cholangitis/cholangiohepatitis and cholecystitis may be occurring, in addition to intermittent episodes of pancreatitis.*

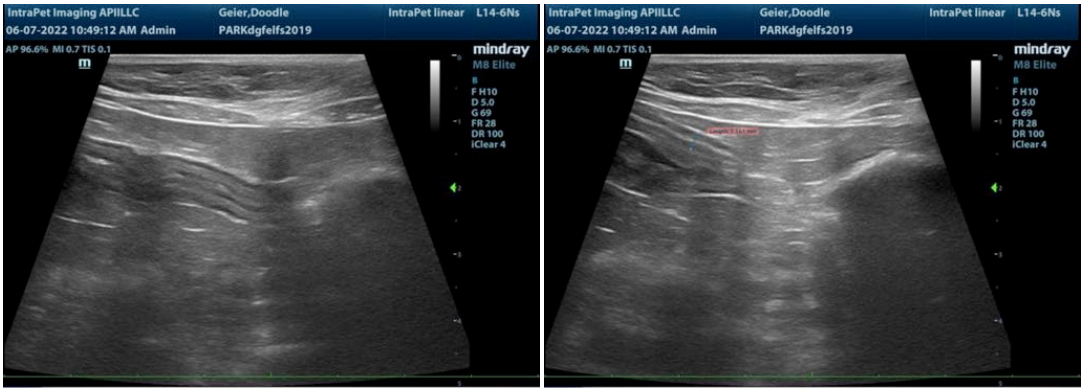
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Doodle is very young to be suffering from hyperthyroidism. An intolerance to the medication may be playing a role in Doodle's vomiting episodes and weight loss.

A re-evaluation of the serum thyroxin concentration is recommended 4 to 6 hours after application of the transdermal gel.

Other suggestions/recommendations include

- Analgesia trial for visceral pain, e.g., buprenorphine, for 5-7 days. Continue for 2-4 weeks if an improvement is noted.
- Cholestasis, cholangitis/cholangiohepatitis and cholecystitis cannot be excluded, including and secondary ascending bacterial infections. Although indiscriminate use of antibiotics is not normally recommended, one could begin treatment with a broad-spectrum antibiotic and assess clinical response. *If a response is observed, continue antibiotics for a total of 4 to 6 weeks.
- If signs of gastro-esophageal reflux disease (GERD), 10-14 day trial with famotidine or omeprazole (0.7-1 mg/kg PO q12h)
- Depending on response to the above,
- Deworm with broad-spectrum dewormer (fenbendazole)
- Diet trial (veterinary prescription brand hypoallergenic, i.e., hydrolyzed or novel protein); ensure appetizing to prevent hepatic lipidosis, sarcopenia and cachexia
- Consider TLI, serum cobalamin, and folate, to assess for underlying maldigestion and malabsorption disease and dysbiosis (+/-SNAP PLI or Spec fPL)
- Endoscopy of the upper and lower GI tract would be the final step in the work up due to the vomiting and diarrhea, however, this may also occur due to cholangitis/cholangiohepatitis and cholecystitis. Another option, although much more invasive, would be to perform an exploratory laparotomy.

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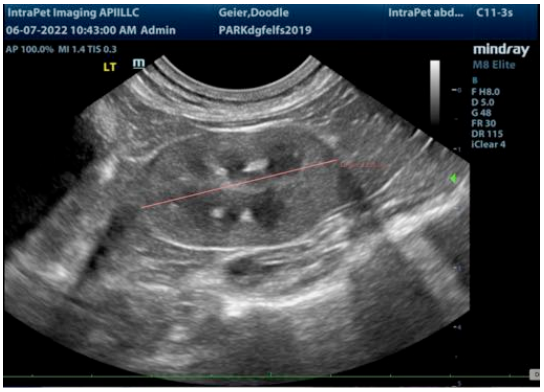
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IntraPet Imaging APIILLC
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1 Dist 1.17 cm
2 Dist 0.58 cm
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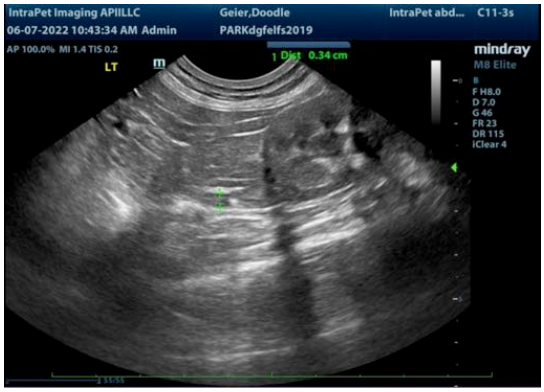

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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