

**PATIENT**

Meri Li

**PRESENTING CLINICAL SIGNS**

History: possible foreign body-ingested part of o's underwear last Thursday, Passed most of it in her stool on Friday. Vomited 3 x since yesterday. meds: pantoprazole

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

**BREED**

Yorkie Cross

The urinary bladder is well distended. The wall is smooth and regular. A trivial amount of free floating sediment is present, however, there is no evidence of cystoliths, polyps or a mass. The trigone and proximal urethra are visualized.

**SEX**

Spayed Female

*Kidneys*

**AGE**

9 years

The **left** kidney measures 3.91 cm. The capsule is smooth. The cortex is mildly hyperechoic and a mild loss of the normal definition of the cortico-medullary junction is present. Very small mineralizations of the diverticulae and pelvis are present, without evidence of nephroliths or pyelectasia. The surrounding mesentery is not hyperechoic.

The **right** kidney measures 3.45 cm. The capsule is smooth. The cortex is mildly hyperechoic and a mild loss of the normal definition of the cortico-medullary junction is present. Mineralizations of the diverticulae are present, without evidence of nephroliths or pyelectasia. The surrounding mesentery is not hyperechoic.

**WEIGHT**

4 lbs

**INTERPRETED BY**

Lisa Carioto, DVM,  
DVSc, Diplomate  
ACVIM

*Aortic bifurcation/trifurcation*

No abnormalities observed.

**IMAGING PERFORMED BY**

Kelly Reshny, RVT

*Adrenal Glands*

The **left** adrenal gland measures 0.54 cm at the cranial pole, 0.51 cm at the caudal pole and 2.29 cm in length. A hyperechoic nodule, measuring 4.0 mm in diameter x 4.3 mm in length, is observed at the caudal pole. No abnormalities are noted with the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

**HOSPITAL NAME**

Nelson AH

The **right** adrenal gland measures 0.44 cm at the caudal pole. No abnormalities are noted with the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

**REFERRING VET**

Dr. Anderson

*Spleen*

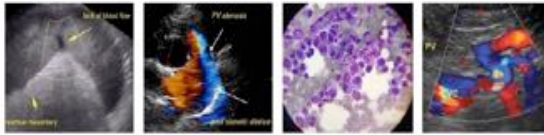
**INVOICE**

30209

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.

**DATE**

5/9/22



**PATIENT** *Liver*

Meri Li There are no obvious signs of hepatomegaly and its borders are smooth and sharp. The liver's echotexture is homogeneous and it is within normal limits in echogenicity. No abnormalities are observed with the hepatic vessels visualized.

**SPECIES**

Canine The gallbladder wall is mildly thickened at 1.9 mm and is very mildly hyperechoic. A trivial 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.

**BREED**

Yorkie Cross

*Gastrointestinal*

**SEX**

Spayed Female

A large amount of fluid and gas are present within the lumen of the stomach. The gastric wall is within normal limits in thickness and the wall layers are well defined. Decreased and ineffective peristalsis is observed, i.e., a "to and fro" motion is noted. A mild ileus is present. The mesentery surrounding the stomach is hyperechoic. A foreign body cannot be excluded with certainty.

**AGE**

9 years

A mild to moderate amount of fluid is present within the lumen of the small intestines. The small intestinal wall thickness, including the duodenum, is within normal limits and the definition of the wall layers is preserved. The submucosa and muscularis layers are thicker than normal. Decreased and ineffective peristalsis is observed, i.e., a "to and fro" motion is noted. A mild ileus is present. Abnormally dilated loops of bowel are not observed.

**WEIGHT**

4 lbs

The colonic wall is not thickened and mural detail is considered normal. Gas is present, and the fecal matter is liquid.

**INTERPRETED BY**

Lisa Carioto, DVM,  
DVSc, Diplomate  
ACVIM

*Pancreas*

No overt abnormalities are observed with the echogenicity or echotexture of the pancreas, however an in-depth evaluation of the area is difficult to perform due to the large amount of gas in the surrounding gastrointestinal tract.

**IMAGING PERFORMED BY**

Kelly Reshny, RVT

*Other*

**Lymph nodes**

**HOSPITAL NAME**

Nelson AH

No abnormalities are observed

**Abdominal effusion** is not visualized.

**REFERRING VET**

Dr. Anderson

**ULTRASONOGRAPHIC FINDINGS**

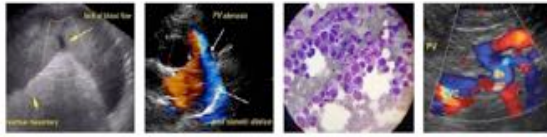
**INVOICE**

30209

- The gas pattern in the stomach is somewhat suspicious for a foreign body. However, an obvious foreign body is not observed in the stomach or duodenum. A mild, but diffuse ileus of the stomach and intestines is present. Furthermore, the mesentery surrounding the stomach and GI tract is mildly hyperechoic, which is suggestive of inflammation.
- The changes observed with the submucosa and muscularis are suggestive of inflammation, which may be due to vomiting episodes, however, underlying inflammatory bowel disease cannot be excluded. The latter may cause pica.

**DATE**

5/9/22



**PATIENT**

Meri Li

- Meri will likely experience diarrhea in the next day or so based on the liquid stools in her colon.
- The hyperechoic nodule at the caudal pole of the left adrenal gland may be due to fat, mineralization and/or fibrosis.

**SPECIES**

Canine

- A very mild cholecystitis cannot be excluded.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**BREED**

Yorkie Cross

The gas pattern in the stomach is suspicious for a foreign body, however, an obvious foreign body is not observed. As mentioned above, foreign bodies can be difficult to identify, particularly in the stomach. If a foreign body is strongly suspected, baseline radiographs may be performed and followed up in a few hours to ensure the gas pattern is moving, or a sonographic re-evaluation of the stomach and questionable loop of bowel, such as the duodenum, may be performed.

**SEX**

Spayed Female

Subcutaneous or intravenous fluids are suggested to prevent Meri from becoming dehydrated.

**AGE**

9 years

An anti-emetic may be administered once a day for a few days to help decrease further vomiting.

Endoscopy may be performed if costs are not a serious concern as it is not very invasive, however, medical management for another 18-24 hours is suggested before pursuing an exploratory laparotomy.

**WEIGHT**

4 lbs

If endoscopy or an exploratory laparotomy is pursued, biopsies are strongly recommended to exclude underlying inflammatory bowel disease.

An evaluation of the GGT is suggested to exclude a cholecystitis. Obtaining a history regarding signs of gastroesophageal reflux disease is suggested, which may also be a sign of inflammatory bowel disease.

**INTERPRETED BY**

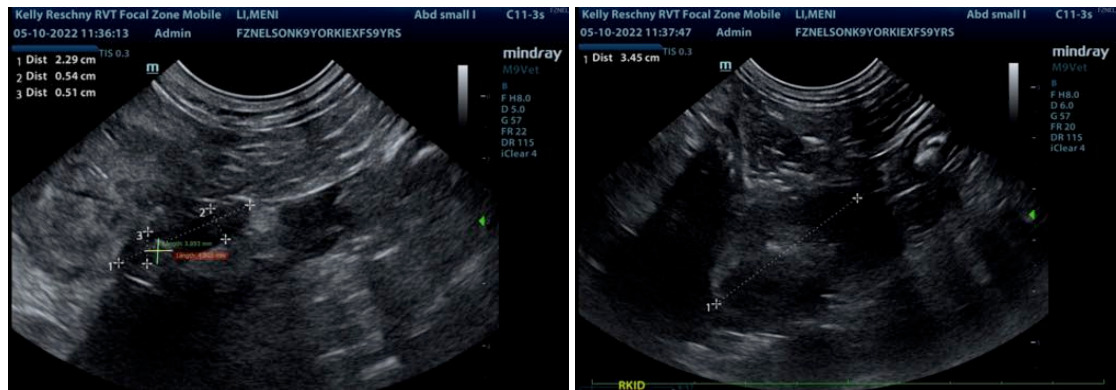
Lisa Carioto, DVM,  
DVSc, Diplomate  
ACVIM

**IMAGING PERFORMED BY**

Kelly Reshny, RVT

**HOSPITAL NAME**

Nelson AH



**REFERRING VET**

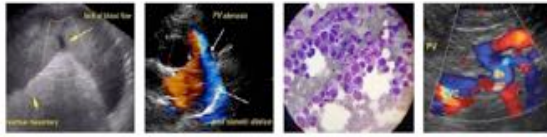
Dr. Anderson

**INVOICE**

30209

**DATE**

5/9/22



**PATIENT**

Meri Li

**SPECIES**

Canine

**BREED**

Yorkie Cross

**SEX**

Spayed Female

**AGE**

9 years

**WEIGHT**

4 lbs

**INTERPRETED BY**

Lisa Carioto, DVM,  
DVSc, Diplomate  
ACVIM

**IMAGING  
PERFORMED BY**

Kelly Reshny, RVT

**HOSPITAL NAME**

Nelson AH

**REFERRING VET**

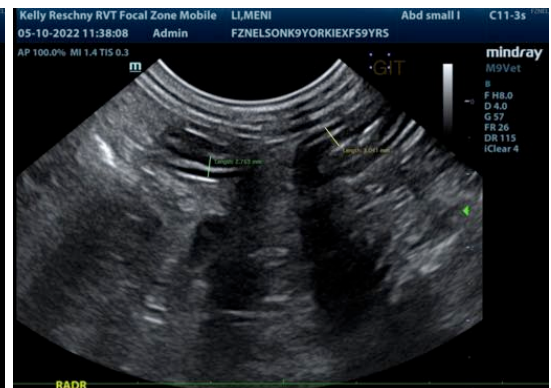
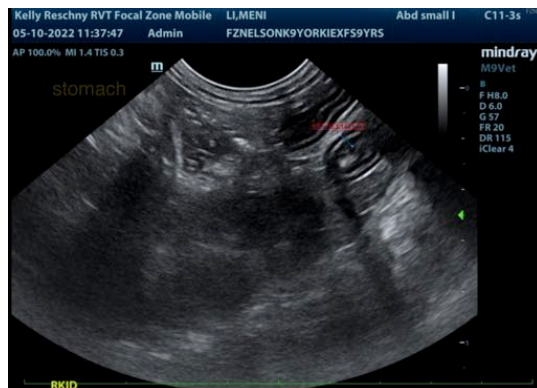
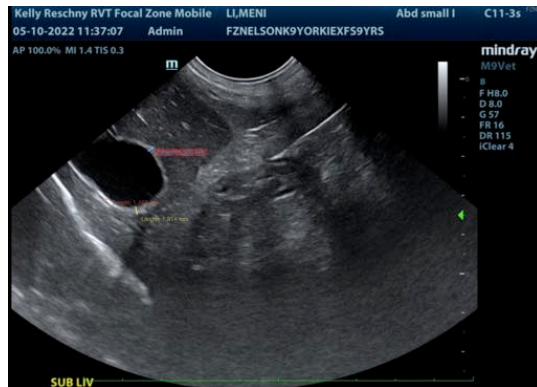
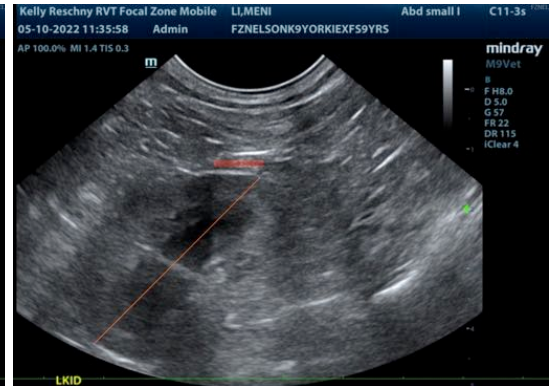
Dr. Anderson

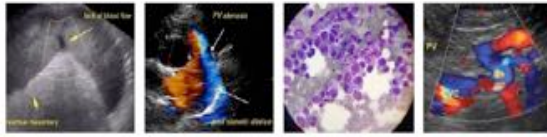
**INVOICE**

30209

**DATE**

5/9/22





**PATIENT**

Meri Li

**SPECIES**

Canine

**BREED**

Yorkie Cross

**SEX**

Spayed Female

**AGE**

9 years

**WEIGHT**

4 lbs

**INTERPRETED BY**

Lisa Carioto, DVM,  
DVSc, Diplomate  
ACVIM

**IMAGING  
PERFORMED BY**

Kelly Reshny, RVT

**HOSPITAL NAME**

Nelson AH

**REFERRING VET**

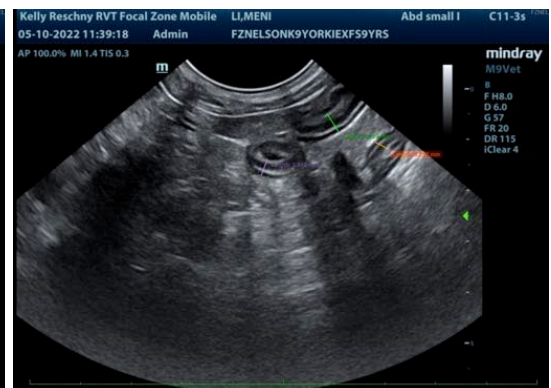
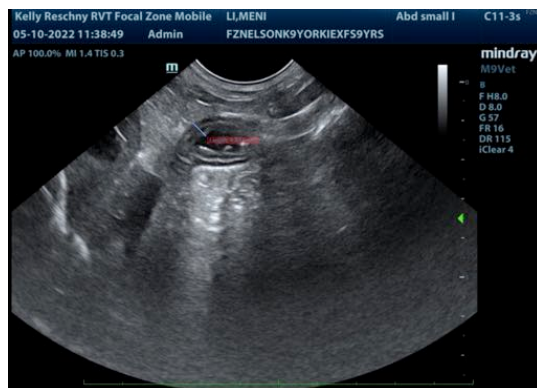
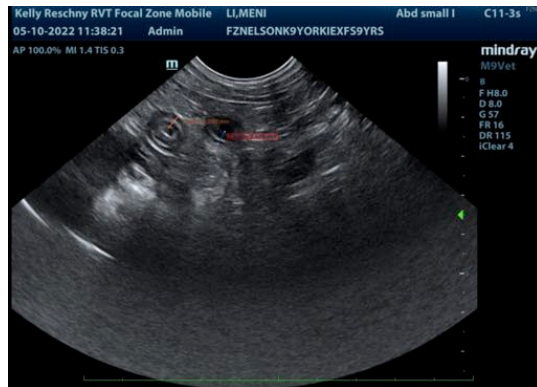
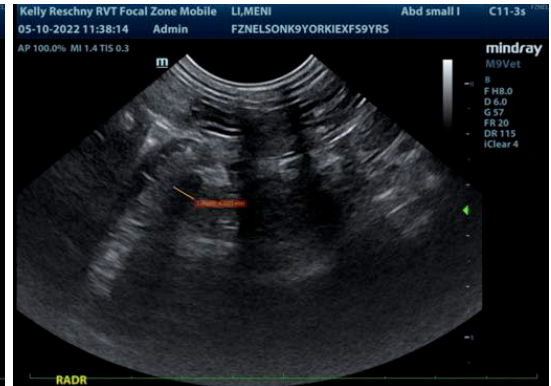
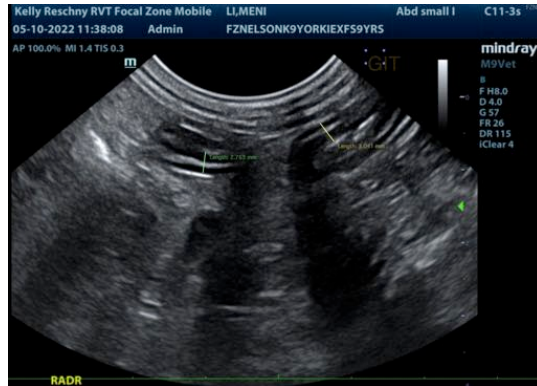
Dr. Anderson

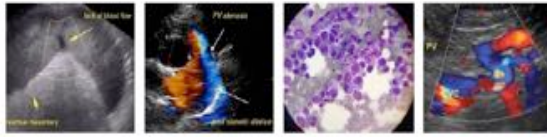
**INVOICE**

30209

**DATE**

5/9/22





**PATIENT**

Meri Li

**SPECIES**

Canine

**BREED**

Yorkie Cross

**SEX**

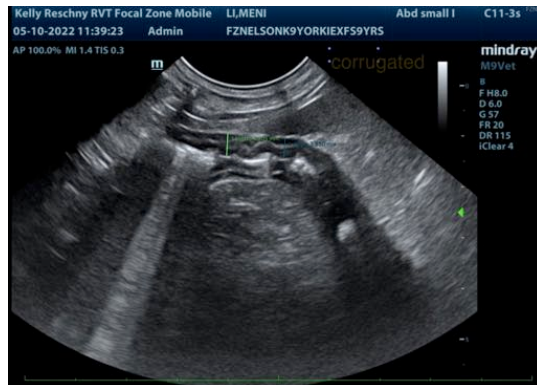
Spayed Female

**AGE**

9 years

**WEIGHT**

4 lbs



**INTERPRETED BY**

Lisa Carioto, DVM,  
DVSc, Diplomate  
ACVIM

**IMAGING PERFORMED BY**

Kelly Reshny, RVT

**HOSPITAL NAME**

Nelson AH

**REFERRING VET**

Dr. Anderson

**INVOICE**

30209

**DATE**

5/9/22

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)