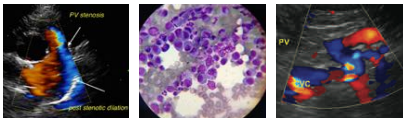
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

DATE
7/1/22

PATIENT
Bella Murrell

SPECIES
Canine

BREED
Yorkshire Terrier

SEX
Spayed Female

AGE
10/8/13

WEIGHT
10.9 lbs

INTERPRETED BY
Eric Lindquist, DMV DABVP, Cert. IVUSS

HOSPITAL NAME
Animal Emergency Hospital

REFERRING VET
Dr. Thompson

INVOICE
31426

PRESENTING CLINICAL SIGNS

Bella is a 8 y/o FS yorkshire terrier - hx liver disease - intermittent swelling of abdomen over the past month - past week to few days belly getting larger - decrease appetite, did not eat this morning - eats chicken breast, oatmeal, egg rice, gained a pound in the last week - drinking normally the same amount, less defecation - No V/D/S - hx of vomiting bile, no recent hx - a few days ago video of licking, laying down jumped up and then seemed in distress 2-3 times, drooling, having a hard time breathing, swallowing/coughing/gagging - last BW: last checked April - change in diet: no recent changes, is on home cooked diet, did get rotisserie chicken for 1 week when O were out of town, gained a pound - AUS over a year ago Medications: - denarmarin 1/2 tab BID 225mg - no other medications - will not take lactulose - miralax in water on occasion
Current Medications: Denamarin.
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**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. Mild mineralization was noted in the kidneys. Largest calculus measured 0.39 cm and was non-obstructive. The left kidney measured 4.08 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.52 cm at the caudal pole and 0.46 cm at the cranial pole. The right adrenal gland measured 1.66 x 0.68 cm at the caudal pole and 0.46 cm at the cranial pole.

Spleen

The **spleen** was normal size and relatively normal contour with multifocal hyperechoic areas of mineralization. This is a benign change; however, can be related to Cushing's disease or other endocrinopathies.

Liver

The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia.

Gastrointestinal

The **stomach** revealed hypertrophy without loss of mural detail. Muscularis and mucosal hypertrophy was noted with echogenic mucosal remodeling.

Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

ULTRASONOGRAPHIC FINDINGS

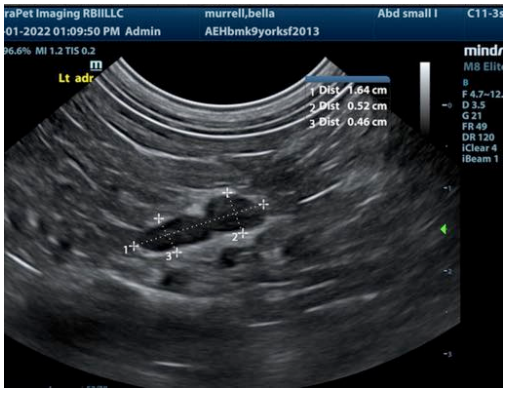
Age related renal changes with mineralization, non-obstructive.
Mild gastric hypertrophy.
Non-specific hepatopathy.
Mineralized spleen.
Adrenals appear slightly swollen, yet measure normally.

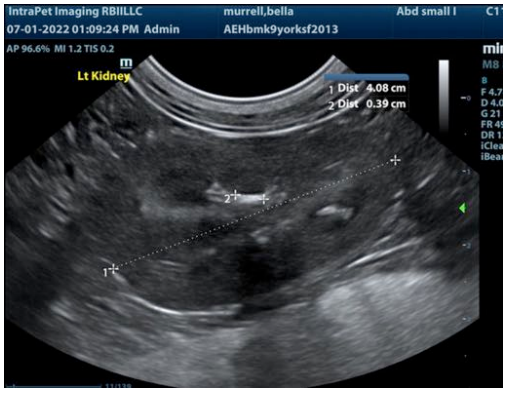
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

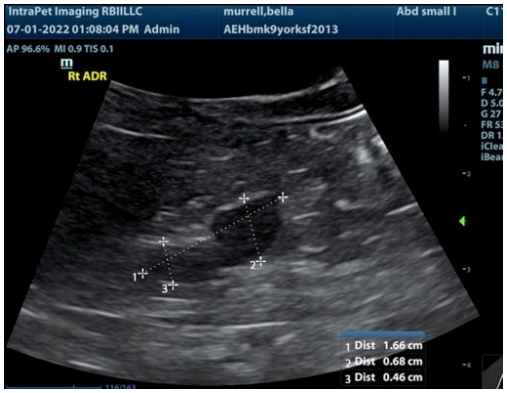
The cause of abdominal swelling is unclear. If post prandial swelling is an issue then delayed outflow could be the underlying cause, yet structurally the abdomen has largely expected changes for this patient. There was no evidence of significant pathology. Even though the adrenal glands are structurally normal early PDH is possible. However, in a small amount of PDH cases the adrenal glands appear normal. Given the patient's history and gastric presentation GI protectant protocol is indicated such as the following.

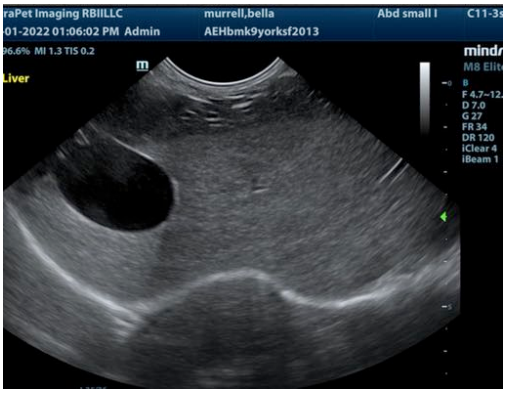
Helicobacter/Gastritis protocol

A clinical trial of **Zithromax (*Dogs:*** 5-10 mg/kg p.o. q24h. May increase dosing interval to q48h after 3-5 days of treatment)**, Metronidazole** (10-20 mg/kg p.o. b.i.d.), **Sucralfate** (0.5-2 g/dog PO) and **Omeprazole** (1 mg/kg p.o. s.i.d.) over the next 3 weeks along with a **novel-protein or hydrolyzed diet** with slurry feeding b.i.d./t.i.d. over the next 2-4 days and then increase to canned diet bid. Dry food should be avoided over the next 4 weeks. A recheck sonogram to assess GI improvement or progression would be ideal in 4 weeks.









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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
Eric.Lindquist@SonoPath.com