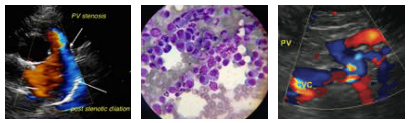
IMAGING PERFORMED BY

IntraPet.com



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

DATE
6/27/22

PATIENT
Elsa Stolasz

SPECIES
Canine

BREED
German Shepherd

SEX
Spayed Female

AGE
9/20/14

WEIGHT
82.8 lbs

INTERPRETED BY
Lisa Carioto, DVM, DVSc, Diplomate ACVIM

HOSPITAL NAME
Bay Country VH

REFERRING VET
Dr. McLean

INVOICE
31265

PRESENTING CLINICAL SIGNS

PU/PD, inappropriate urination for 4-6 weeks. Labwork showed hypercalcemia, azotemia.
Current Medications: None.
Lab Results: Calcium 13.7 (8.4-11.8), SDMA 26 (0-14), Creatinine 1.9 (0.5-1.5).
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Dexdomitor 0.5mg/mL 1.1mL IM and Butorphanol 10mg/mL 0.7mL IM
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is very well distended with anechoic contents. The wall is smooth and regular. There is no evidence of cystoliths, polyps or a mass. No abnormalities are present with the trigone or proximal urethra. A trivial amount of free floating sediment is present, however, there is no evidence of cystoliths, polyps or a mass.

Kidneys

The **left** kidney measures approximately 5.50 cm in diameter x 9.85 cm in length. Severe hydronephrosis is present, with moderate to severe compression of the cortex, which measures approximately 0.41 to 0.96 cm, depending on the location. A few calyces are recognizable. The portion of the kidney that remains recognizable has a smooth capsule. The cortex is hyperechoic, i.e., it is isoechoic to the spleen, and a very mild loss of the normal definition of the cortico-medullary junction is present. Blood flow of the cortex is within normal limits. Hydroureter is also present. The surrounding mesentery is mildly to moderately hyperechoic ventromedially.

The **right** kidney measures approximately 6.11 cm in diameter x 10.43 cm in length. Severe hydronephrosis is present, with compression of the cortex, which measures approximately 0.96 cm. A few calyces are recognizable. Hydroureter of 1.52 cm is noted. Blood flow of the cortex is within normal limits. Hydroureter is also present. The surrounding mesentery is mildly to moderately hyperechoic ventromedially.

Aortic bifurcation/trifurcation

No abnormalities observed.

Adrenal Glands

The **left** adrenal gland measures 1.03 cm at the cranial pole, 0.96 cm at the caudal pole and 3.04 cm in length. 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 measures 1.00 cm at the cranial pole, 0.97 cm at the caudal pole and 3.46 cm in length. No obvious abnormalities are noted with the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

Spleen

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.

Liver

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. Focal lesions are not observed and no abnormalities are observed with the hepatic vessels.

The gallbladder wall is mildly distended with a moderate to large amount of free floating, gravity-dependent and inspissated echogenic material (sludge). The sludge varies in degrees of echogenicity, however, choleliths are not observed. 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

The gastric wall is within normal limits in thickness and the wall layers are well defined. No obvious abnormalities are observed with its peristalsis.

The small intestinal wall thickness, including the duodenum, is within normal limits and the definition of the wall layers is preserved. Abnormally dilated loops of bowel are not observed.

Large amount of gas present in the transverse colon.

The colonic wall is at the high end of normal reference range, however, mural detail is considered normal. Stools are present within the colon.

Pancreas

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

Other

Pelvic mass: A relatively homogeneous mass is observed. It originates ventral to the urinary bladder and extends caudally into the pelvic canal. It measures approximately 6.95 cm in diameter x 6.76 cm in length in one view and 6.19 cm in diameter x 5.76 cm in length in a different view. The mass is mildly vascular when evaluated with colour Doppler. It compresses the trigone and proximal urethra. Acoustic enhancement of the surrounding tissue is present.

Lymph nodes (LNs)
An enlarged, elliptically shaped lymph node, measuring 2.24 cm in diameter x 2.30 cm in length is observed in the caudal abdomen adjacent to the aortic bifurcation. It is not well vascularized. No obvious invasion of the blood vessels are observed. A few other lymph nodes are observed, which are also enlarged, "plump", and mildly hypoechoic.
A sublumbar LN appears enlarged and mildly hypoechoic.

Anal sacs
There are no signs of neoplasia.

Abdominal effusion is not visualized.

ULTRASONOGRAPHIC FINDINGS

- **Pelvic mass**: A **mass** ventral to the urinary bladder, which **extends into the pelvic canal**. Possible differential diagnoses include a lipoma, liposarcoma, leiomyoma, leiomyosarcoma, lymphoma or tumours of glandular, endocrine or neural origin. A tumour of vascular origin is considered unlikely based on Doppler examination. The mass does not appear to be originating from the anal sacs. An inflammatory response is suspected based on the acoustic enhancement of the surrounding tissue. The mass appears to be compressing the trigone/urethral area and ureters given the significant **bilateral hydroureters** and **hydronephroses**.

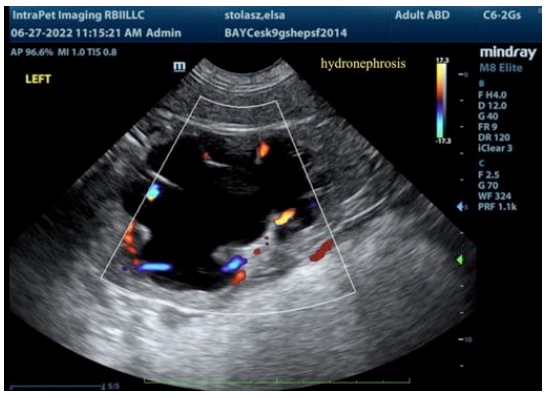
- **Lymph nodes**: Mild to moderate lymphadenomegaly of multiple lymph nodes in the caudal abdomen, in the region of the pelvic mass. Obvious invasion of the surrounding vasculature is not evident. Reactive hyperplasia and infiltration with neoplastic cells cannot be differentiated based on these images, i.e. a fine needle aspirate or tissue biopsy is required to obtain a definitive diagnosis.

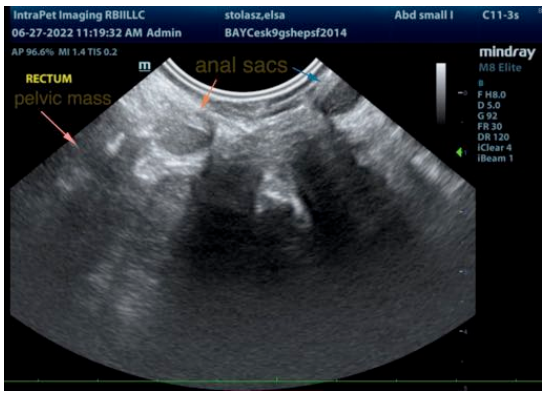
- **Adrenal glands**: Bilateral adrenomegaly may be due to adrenal hyperplasia secondary to chronic illness, which is a form of stress. Pituitary dependent hyperadrenocorticism is considered unlikely based on the absence of clinical signs.

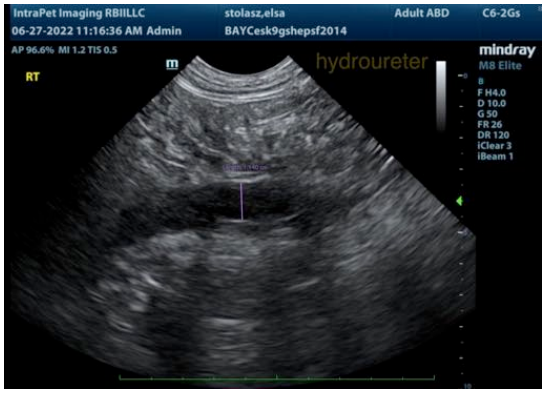
- **Gallbladder**: The **gallbladder sludge** is most likely clinically insignificant, however, gastroesophageal reflux disease (GERD), can occur in some patients. Obtaining a history regarding signs of GERD from the client is suggested. Treatment with an anti-acid or proton pump inhibitor may be indicated. Treatment with ursodeoxycholic acid is not a priority at this time and may cause GI side effects.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A urine culture, if not already performed. Treatment for 8-12 weeks may be required depending on the organism isolated. Treatment of *Enterococcus* spp. is often not necessary, if clinical signs are not being demonstrated.
Rectal palpation, although the mass may not be palpable
Ultrasound guided fine needle aspirate and cytology. Discussion with the client regarding possible abdominal seeding of tumour cells is suggested.
Referral to a center with board certified surgeons and radiologists for a CT scan, +/- angiogram to determine if mass is surgically resectable. If not, discussion for the placement of a urinary tube (long dwelling gastric tube placed in urinary bladder to be drained by clients at home) to improve quality of life.



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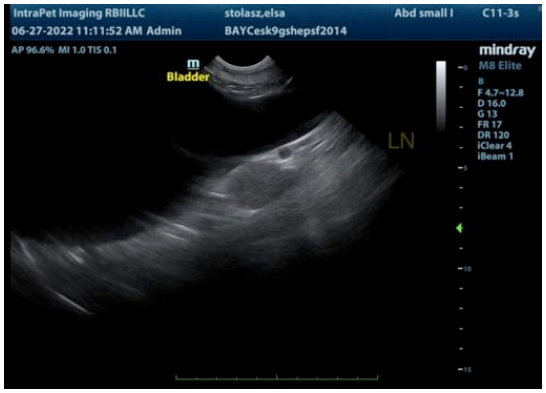
M8 Elite
RT
hydroureter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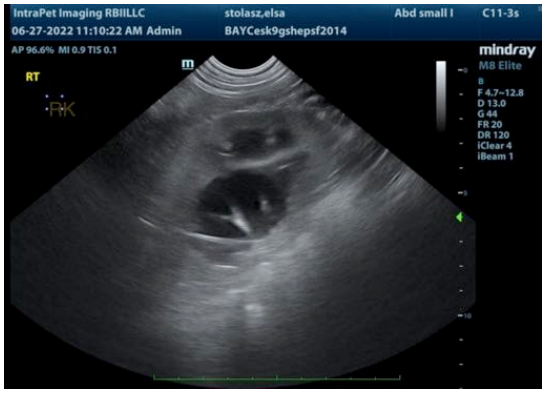
mindray
M8 Elite
Bladder
LN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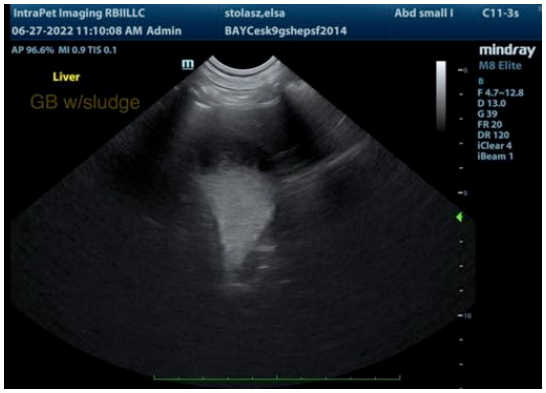
mindray
M8 Elite
RT
FHK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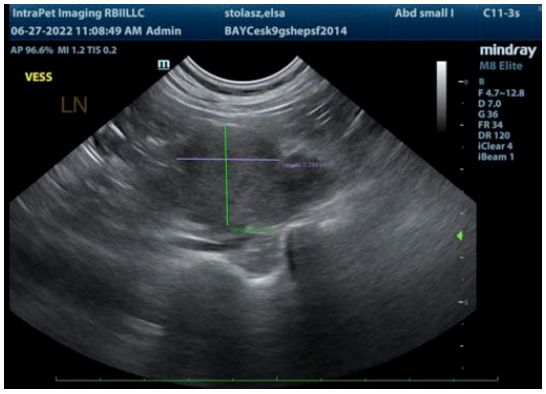
mindray
M8 Elite
Liver
GB w/sludge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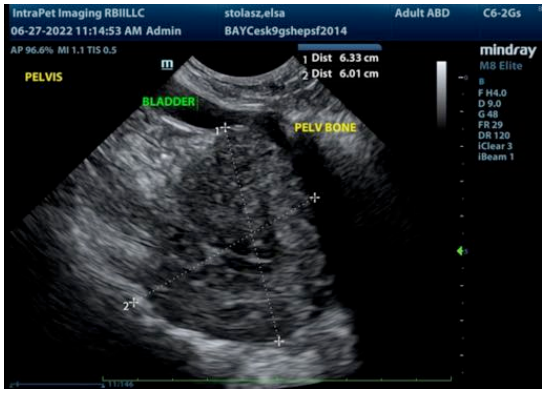
mindray
M8 Elite
VESS
LN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Adult ABD
C6-2Gs
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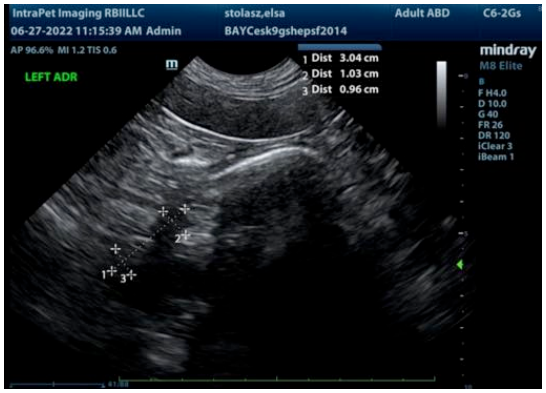
AP 96.6% MI 1.1 TIS 0.5
mindray
M8 Elite
1 Dist 6.33 cm
2 Dist 6.01 cm
PELVIS
BLADDER
PELV BONE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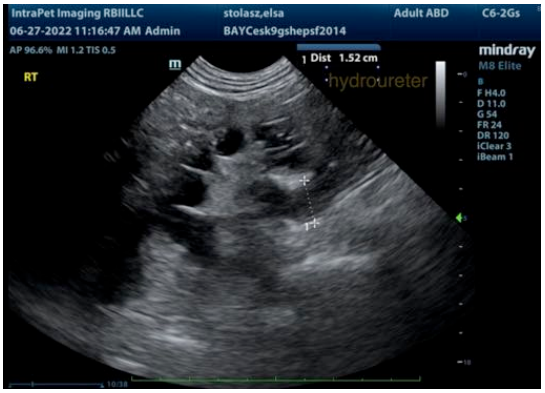
LEFT ADR
1 Dist 3.04 cm
2 Dist 1.03 cm
3 Dist 0.96 cm
mindray
M8 Elite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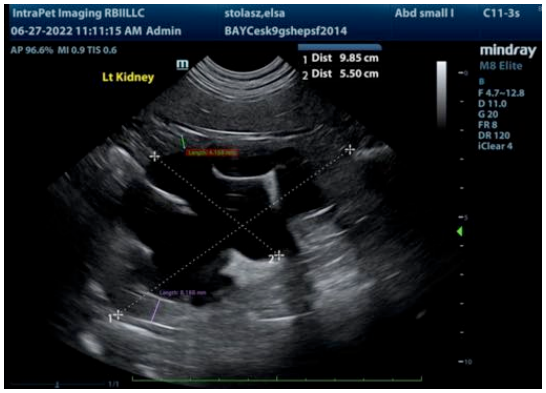
RT
1 Dist 1.52 cm
hydroureter
mindray
M8 Elite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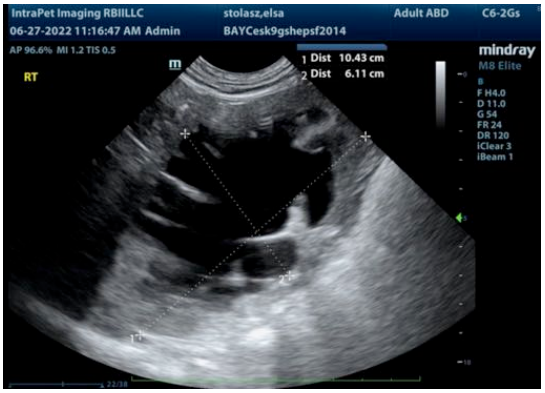
Lt Kidney
1 Dist 9.85 cm
2 Dist 5.50 cm
mindray
M8 Elite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C6-2Gs
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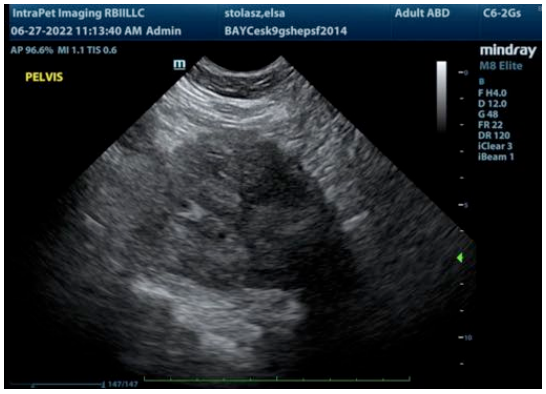
AP 96.6% MI 1.2 TIS 0.5
RT
1 Dist 10.43 cm
2 Dist 6.11 cm
mindray
M8 Elite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PELVIS
mindray
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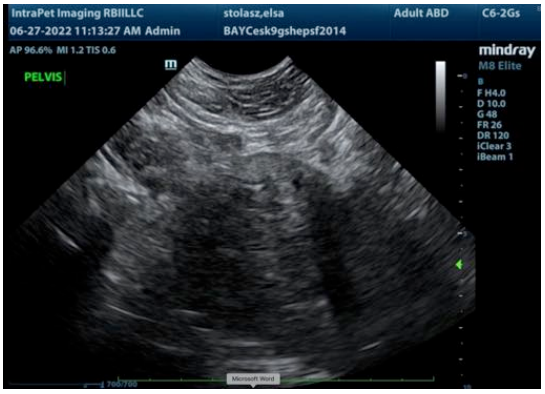
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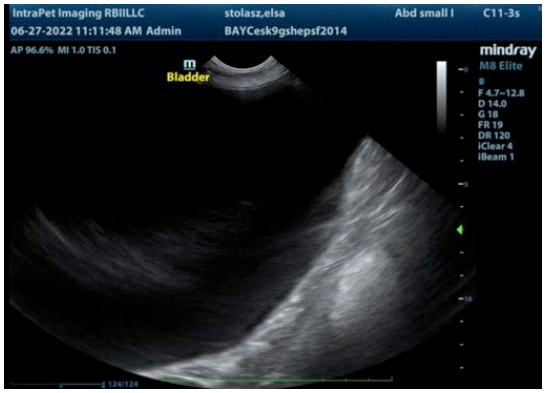

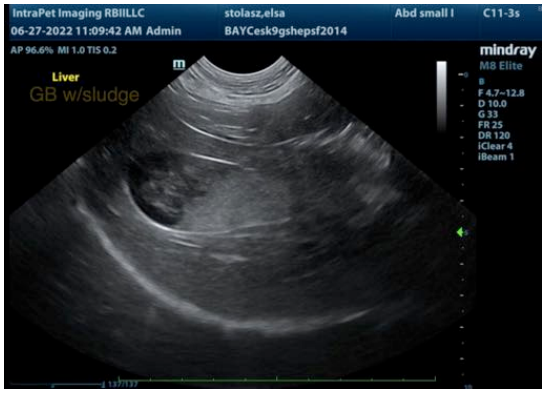

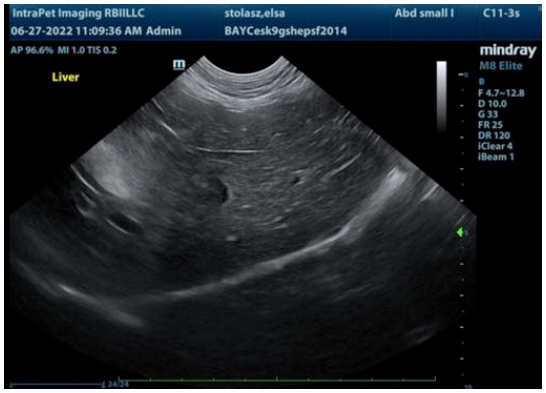

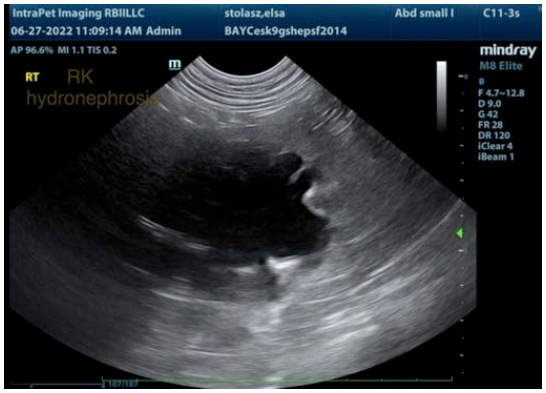

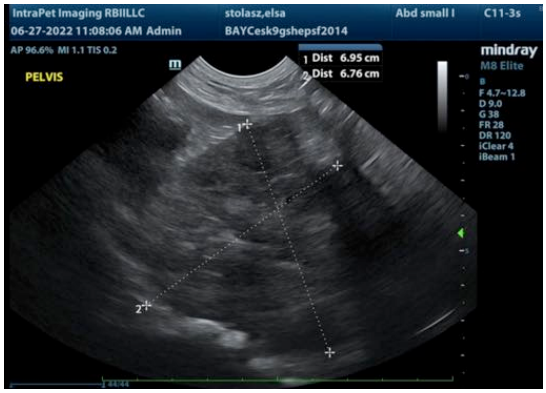

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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