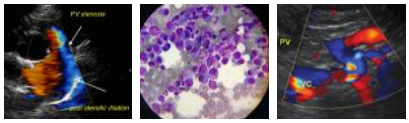
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE
12/19/22

PATIENT
Maggie Trasatti

SPECIES
Canine

BREED
Mix

SEX
Spayed Female

AGE
12/29/2011

WEIGHT
54.3 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

HOSPITAL NAME
Warm & Fuzzy Vet

REFERRING VET
Dr. Weber

INVOICE
20200

PRESENTING CLINICAL SIGNS

Urine and fecal incontinence (since 12/21). P here for inappropriate urination and defecation as well as decreased mobility. Gaba and carprofen aren't helping much with mobility. P seems more lethargic on gaba during the day. O unsure if P is consciously urinating and defecating. P will sometimes walk to an area and eliminate. O taking P out frequently. P water consumption has been increasing since last visit. Also discussed possible urinary incontinence although would expect P dribbling urine and having puddles while laying down. Discussed proin trial. Rec stopping CBD treats as this could be related to P elevated liver values. Rec starting omega-3 supplement for cognitive dysfunction. Per O no improvement in urination with Proin use. Current Medications: Gaba 100mg - 1 cap PO q12-24 hours - started 6/22, Carprofen 100mg - 1/2 tab PO q12hrs - started 4/21, Proin ER 74mg - 1 tab PO 24hrs - started 10/22 (1 month trial) Lab Results: 12/22 - U/A - 2+ urine protein 2+ epithelial cells 6/22 - elevated BUN, ALT, and ALP 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

Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Apical urinary bladder wall is diffusely thick (0.72 cm thick). Mucosa is hyperechoic and irregular. No masses or are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface. Some mineral debris is appreciated, including a small 0.1 cm cystolith suspected.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of mineral or infarcts observed. The left kidney measures 6.16 cm. The right kidney measures 6.65 cm. Pyelectasia is noted bilaterally, measuring 0.82 cm in the sagittal view of the left kidney and 0.54 cm in the sagittal view of the right kidney. Chronic infarcts are present bilaterally. An approximately 1.0 cm in diameter cortical cyst is noted in the left kidney.

Adrenal Glands

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. A hyperechoic nodule is noted in the cranial pole of the left adrenal gland. Nodule does not disrupt normal shape and/or architecture. The left adrenal gland measures 2.5 cm long x 0.99 cm at the cranial pole and 0.84 cm at the caudal pole. The right adrenal gland measures 2.5 cm long x 0.95 cm at the cranial pole and 0.8 cm at the caudal pole.

Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Multiple cystic lesions are also noted throughout the parenchyma, including a 2.5 cm x 3.0 cm cystic nodule/lesion in the right caudal liver, as well as two close by, smaller approximately (1.0 cm) cystic lesions. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as mild suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. The capsule is mildly irregular in shape. Parenchyma is mildly heterogenous and coarse. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion. The medial iliac lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail. Prominent slightly cystic portal lymphadenopathy is noted.

Other

The uterine stump is visible with a bright echogenic density consistent with potentially suture material or even mineral.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Heterogenous liver. In addition to the overall trending in benign in appearance heterogenous parenchyma, multiple, also trending toward benign in appearance cystic lesions are present, potentially suggestive of chronic or resolved cholangiohepatitis (especially given the concurrently heterogenous portal lymph nodes) versus other. Infiltrative neoplastic disease cannot be ruled out but is considered less likely.
- Bilateral adrenomegaly with a hyperechoic adrenal nodule in the cranial pole of the left gland – Differentials include primary adrenal cortical adenoma or adenocarcinoma, pheochromocytoma, myelolipoma, adrenal hyperplasia secondary to pituitary disease or metastatic disease. Ultrasound alone cannot differentiate between functional and non-functional nodules and/or between benign and malignant disease. Small nodules without other evidence of abdominal disease (to suggest metastatic disease) and/or clinical signs (to suggest adrenal disease) are most often incidental and should be monitored.
- Reactive medial iliac lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.

- Age-related kidney changes with chronic infarcts, a left renal cortical cyst and pyelectasia – Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.

- Chronic cystitis with a small cystolith- Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely give the location and diffuse nature of the changes.

Secondary Findings

- Mild gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

- Pancreatic age-related remodeling – Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.

- A prominent uterine stump

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

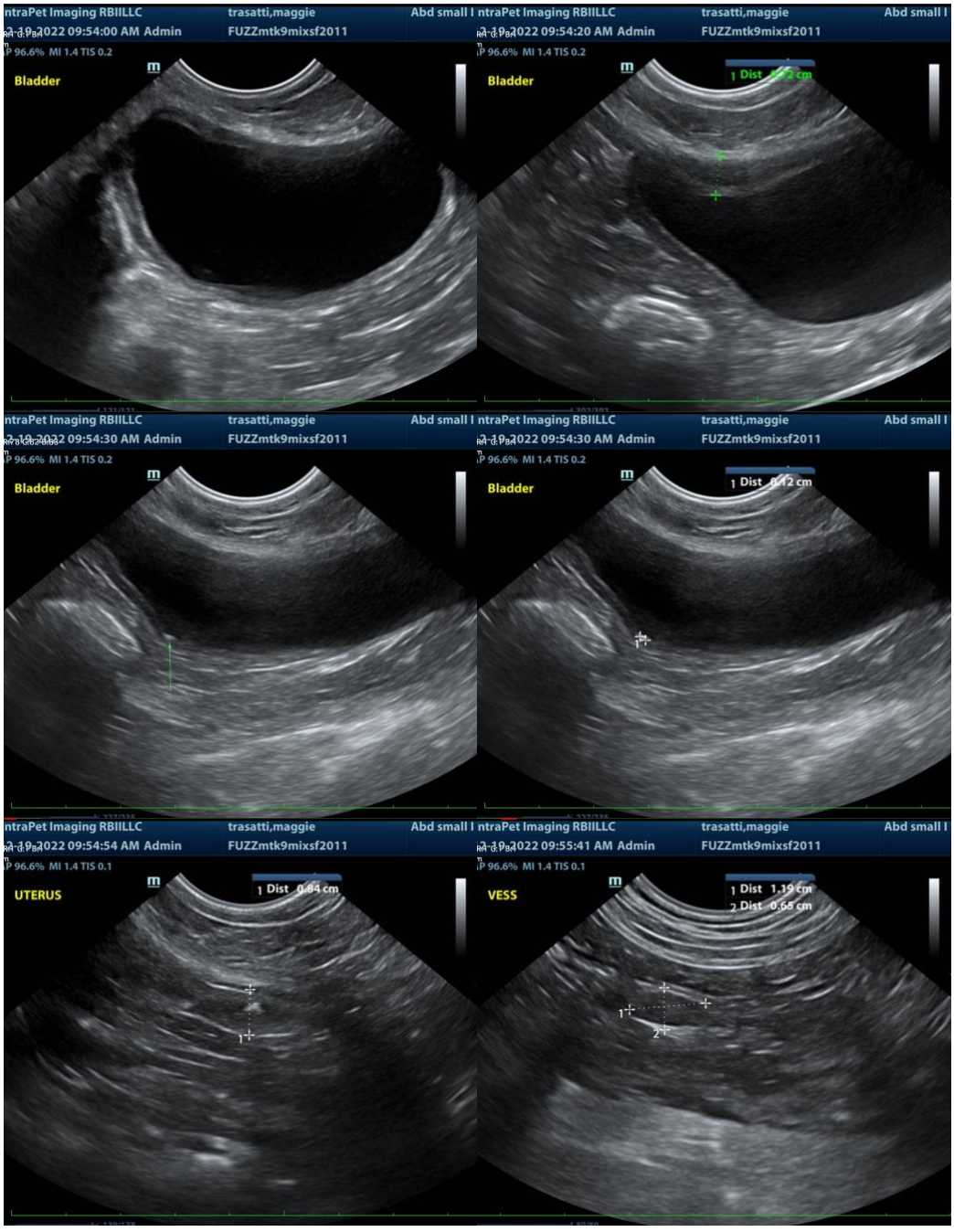
Given this patients urinary signs, combined with the suspect small cystolith, pyelectasia, etc., if not recently evaluated, urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

A blood pressure is recommended, if not recently evaluated.

Given the concurrently mildly increased liver enzymes and mild azotemia, testing for Leptospirosis is warranted.

If the urinary signs are secondary to a urinary tract infection, given the concurrently reported pelvic limb paresis, concurrent spinal disease, such as discospondylitis could be considered.

Overall, the urinary signs, combined with the liver, gallbladder, adrenal, etc., pathology, could suggested hyperadrenocorticism. If the clinical picture of this patient matches hyperadrenocorticism, then testing in the form 0f a low dose dexamethasone suppression test could be considered, however, given this patients reported neurologic signs, cognitive decline, pelvic limb paresis, etc., an overall central nervous system disease could be contributing to the urinary signs, incontinence, fecal incontinence, etc., with the pathology described above being incidental and unrelated.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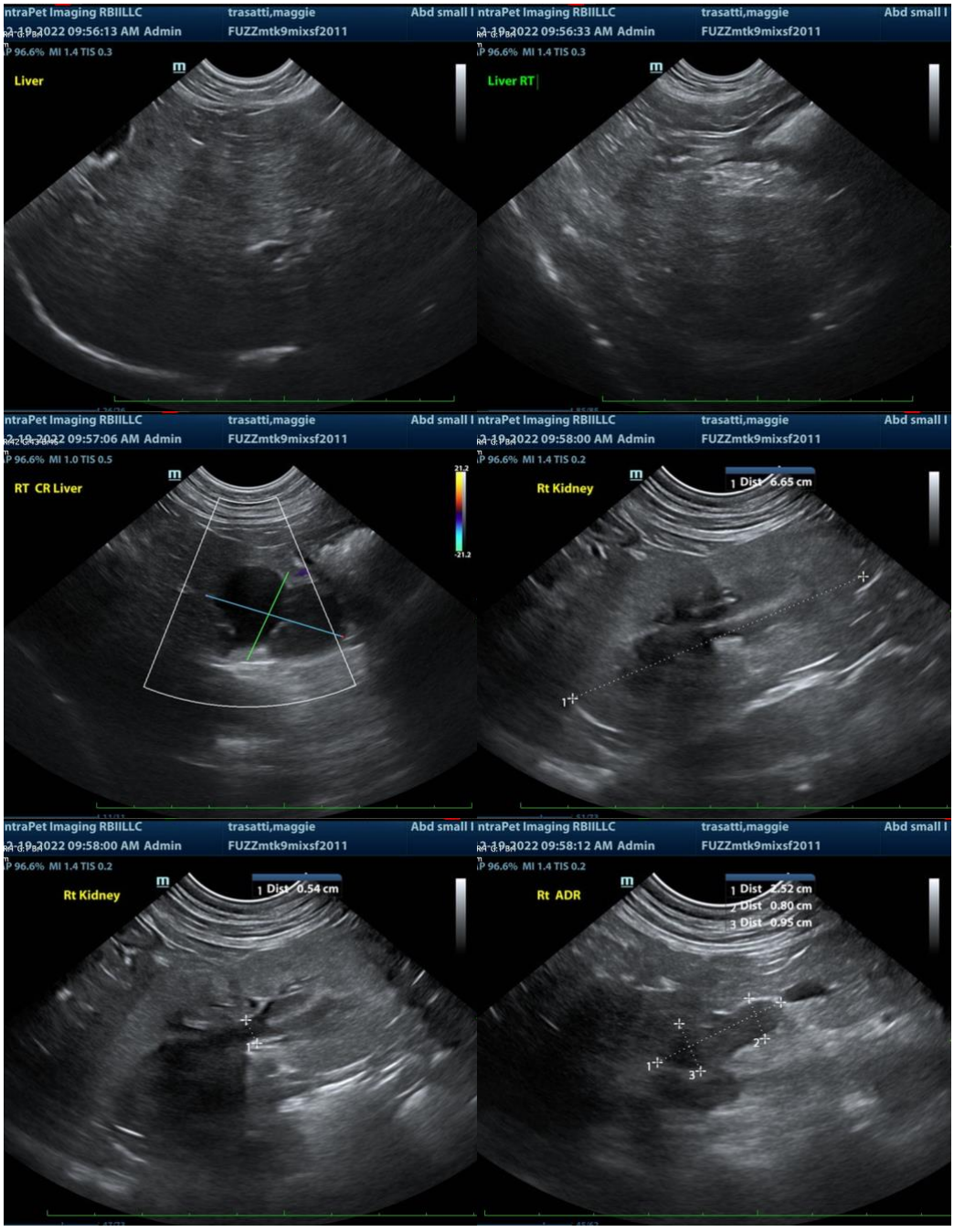
2 Dist 0.65 cm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Abd small I
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Liver
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trasatti,maggie
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Liver RT
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trasatti,maggie
Abd small I
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P 96.6% MI 1.0 TIS 0.5
RT CR Liver
21.2
-21.2
ntraPet Imaging RBIILLC
trasatti,maggie
Abd small I
FUZZmtk9mixsf2011
P 96.6% MI 1.4 TIS 0.2
Rt Kidney
1 Dist 6.65 cm
ntraPet Imaging RBIILLC
trasatti,maggie
Abd small I
FUZZmtk9mixsf2011
P 96.6% MI 1.4 TIS 0.2
Rt Kidney
1 Dist 0.54 cm
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trasatti,maggie
Abd small I
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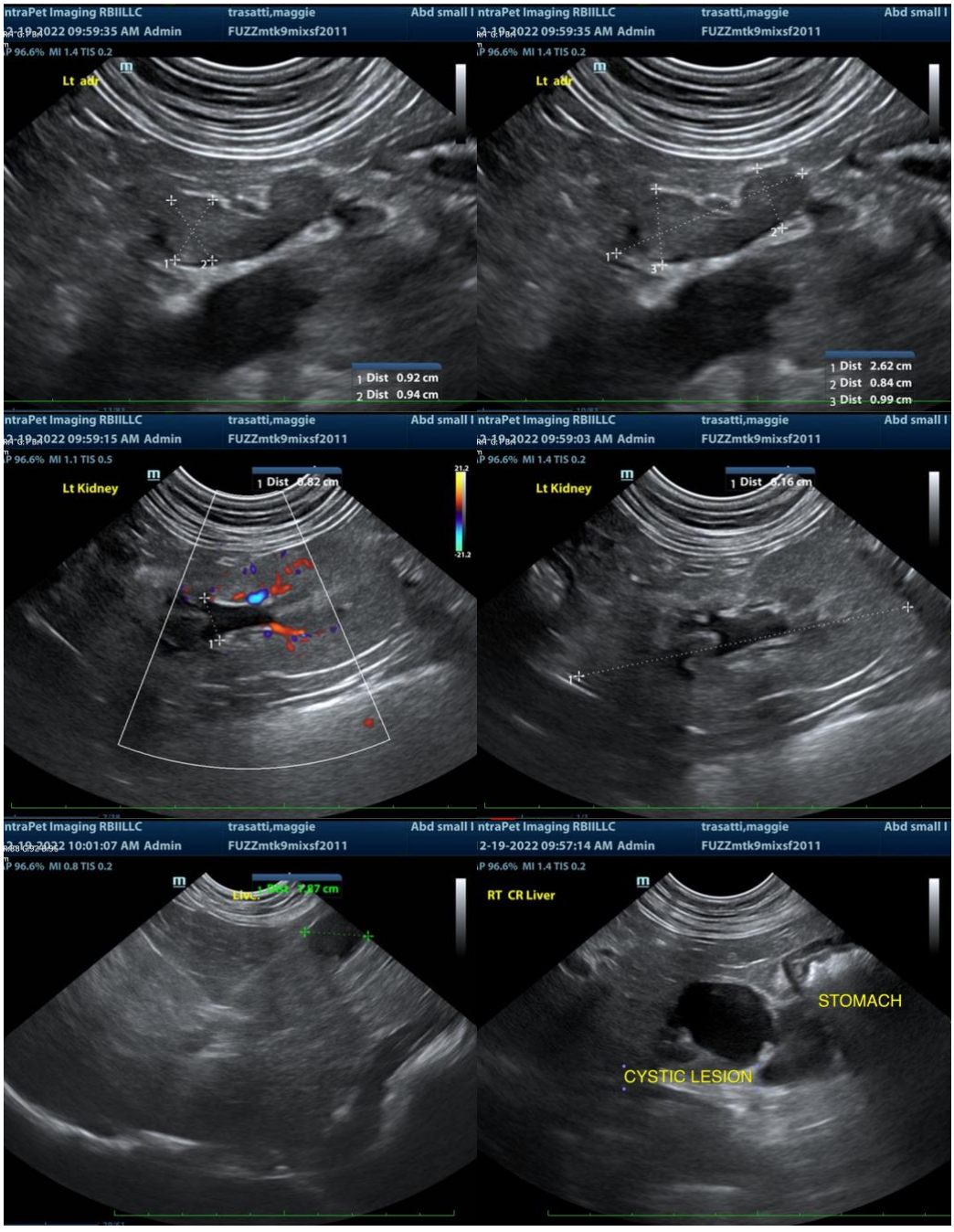
3 Dist 0.95 cm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P 96.6% MI 1.4 TIS 0.2
Lt adr
1 Dist 0.92 cm
2 Dist 0.94 cm
ntraPet Imaging RBIILLC
trasatti,maggie
Abd small I
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P 96.6% MI 1.4 TIS 0.2
Lt adr
1 Dist 2.62 cm
2 Dist 0.84 cm
3 Dist 0.99 cm
ntraPet Imaging RBIILLC
trasatti,maggie
Abd small I
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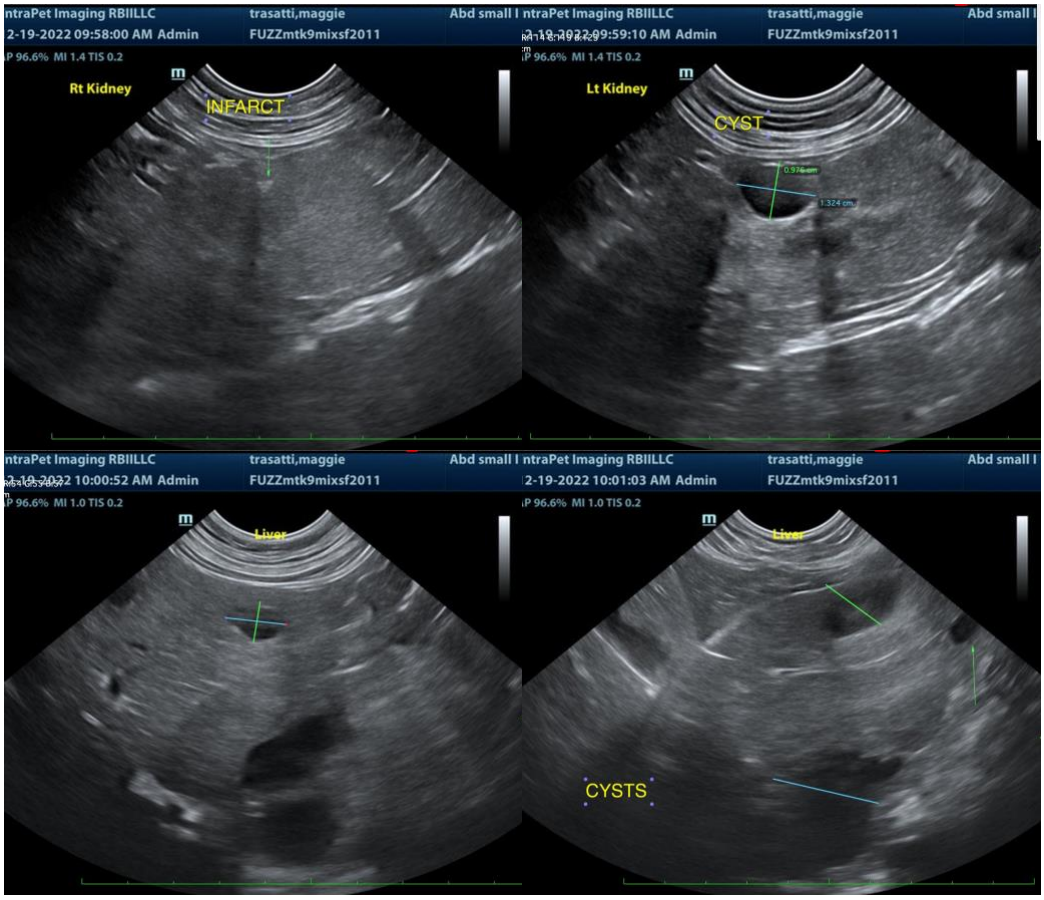
RT CR Liver
STOMACH
CYSTIC LESION



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.

Beth Johnson, DVM DACVIM
Beth.Johnson@SonoPath.com