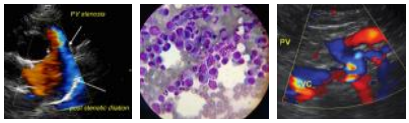
IMAGING PERFORMED BY

IntraPet.com



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

DATE
1/21/22

PATIENT
Sarge Harriss

SPECIES
Canine

BREED
Yorkshire Terrier

SEX
Neutered Male

AGE
11/3/19

WEIGHT
13.5 Lbs.

INTERPRETED BY
Eric Lindquist, DMV
DABVP, Cert. IVUSS

HOSPITAL NAME
Pleasantville AH

REFERRING VET
Dr. Gounaris

INVOICE
13558

PRESENTING CLINICAL SIGNS

History: Has had urinary bladder stones twice past few months (struvite/ammonium acid urate) and has very high pre and post-feeding bile acids. Internal medicine specialist suspicious of liver shunt based on stones and bile acids and Yorkshire breed. Had bladder surgery twice yesterday, with urinary catheter in place.

Current Medications: Clavamox 80 mg BID.
Lab Results: High bile acids, ammonium-urate bladder stones (mixed with struvite). Attached separately.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: IV sedation.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** revealed echogenic debris.

The **prostate** was uniformly enlarged, measuring 2.21 cm in width. The catheter was in proper position.

The **kidneys** were hypervascular and swollen. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex. The capsules were acceptably uniform without significant irregularities. Slight pyelectasia (0.19 cm) was noted in the right kidney. The right kidney measured 5.27 cm. The left kidney was swollen, measuring 4.48 cm. Pyelectasia was noted in the left kidney with echogenic debris.

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 1.63 cm x 0.51 cm at the caudal pole and 0.49 cm at the cranial pole. The right adrenal gland measured 1.47 cm x 0.61 cm at the caudal pole and 0.57 cm at the cranial pole.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

Liver

The **liver** was mildly subnormal in size with increased portal markings. The gallbladder and common bile duct were normal.

Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine

demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

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.

Other

The **vena cava** was dilated at 1.05 cm. The aorta measured at 7.0 mm. Portal vein measured 0.79 cm. An extrahepatic portosystemic shunt was noted in this patient, measuring 8.0 mm in width, deviated ventrally at the level of the pylorus, decoursed dorsally to the vena cava, consistent with gastrocaval shunt.

ULTRASONOGRAPHIC FINDINGS

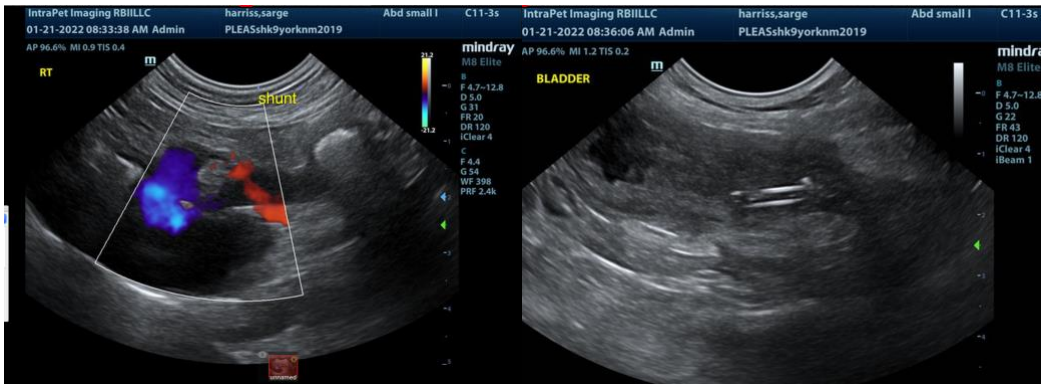
- Extrahepatic portosystemic shunt, consistent with gastrocaval shunt with concurrent inflammatory hepatopathy
- Swollen kidneys, pyelonephritis pattern
- Bladder debris/UTI

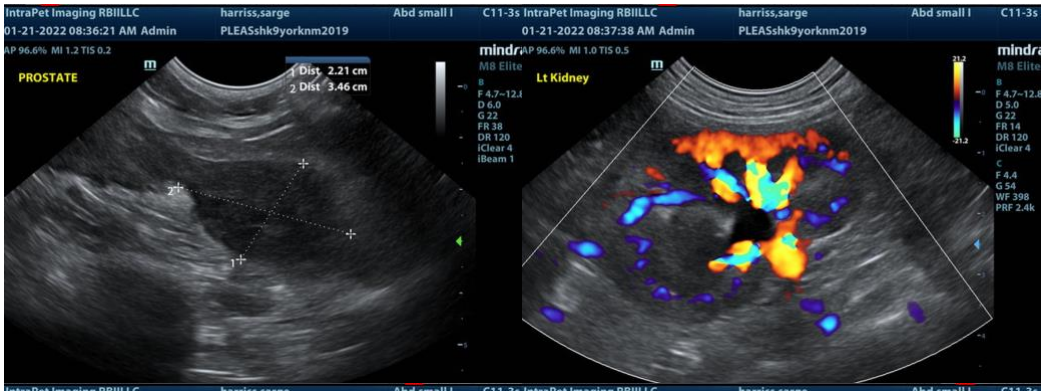
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

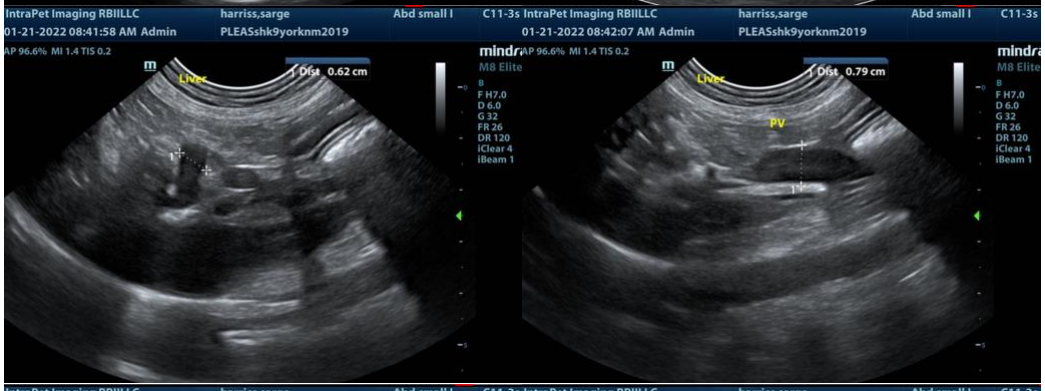
Surgical consultation recommended. Aggressive treatment for UTI warranted at this time as well as medical management. The following protocol is suggested:

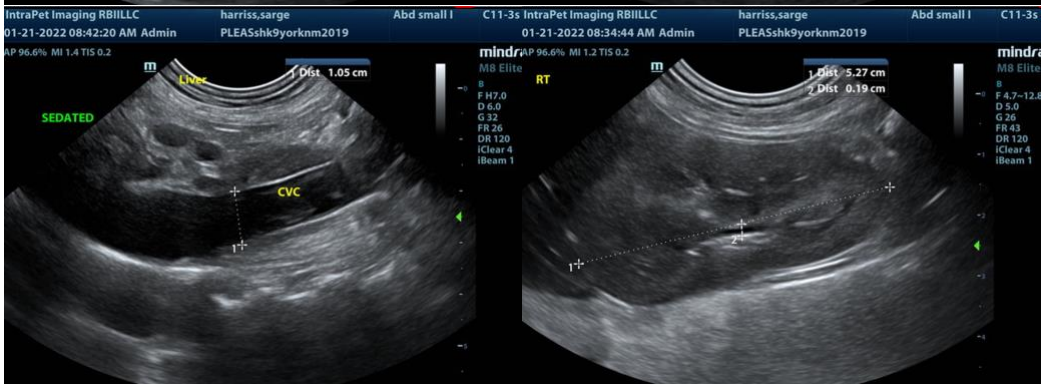
Hepatic Support for Bile Acid Elevation +/- Hepatic Encephalopathy

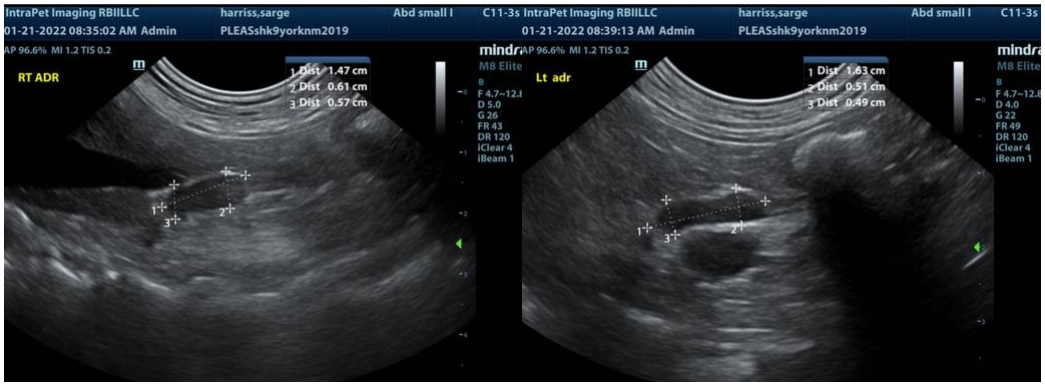
Royal Canin Hepatic Support diet or Hills L/D, **Metronidazole** (7.5 mg/kg PO bid) over the next 14 days, **Lactulose** (Oral: 3.1-3.7 g/5 ml lactulose in a syrup base) long term to target 2-3 soft stools/day, with a **high-quality protein supplement** of minor amount of **yogurt** or **cheddar cheese**. Monitor bile acids, with attention paid to dropping albumin, BUN or cholesterol. SAMe and nutraceuticals as needed. **Ursodiol (**10-15 mg/kg p.o. q24h) can be considered as hepatoprotectant and to enhance bile flow. **Zinc** serum level keep between 200—500 ug/dl. If deficient then Tx zinc acetate 1-3 mg/kg/day. Gastrointestinal protectants are recommended if the patient is anorexic.

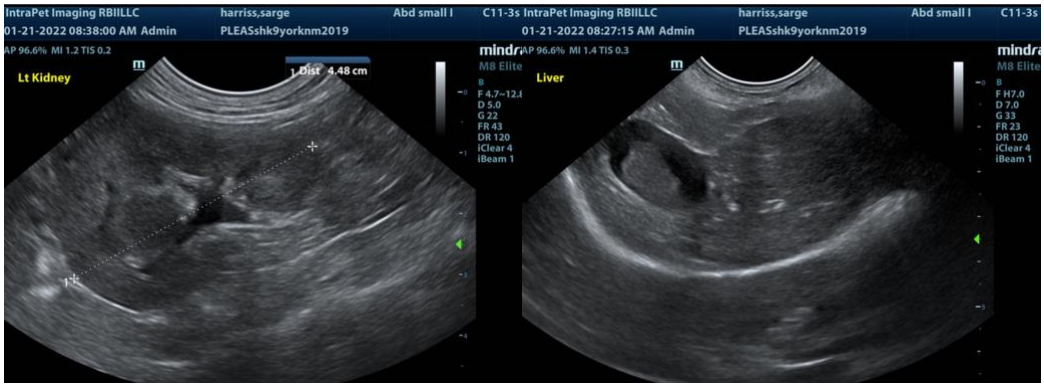



IntraPet Imaging RBIILLC
harriss,sarge
Abd small I
C11-3s
01-21-2022 08:36:21 AM Admin
PLEASshk9yorknm2019
PROSTATE
1 Dist 2.21 cm
2 Dist 3.46 cm
01-21-2022 08:37:38 AM Admin
Lt Kidney


01-21-2022 08:41:58 AM Admin
LIVER
1 Dist 0.62 cm
01-21-2022 08:42:07 AM Admin
LIVER
1 Dist 0.79 cm
PV


01-21-2022 08:42:20 AM Admin
LIVER
1 Dist 1.05 cm
SEDATED
CVC
01-21-2022 08:34:44 AM Admin
RT
1 Dist 5.27 cm
2 Dist 0.19 cm


01-21-2022 08:35:02 AM Admin
RT ADR
1 Dist 1.47 cm
2 Dist 0.61 cm
3 Dist 0.57 cm
01-21-2022 08:39:13 AM Admin
Lt adr
1 Dist 1.63 cm
2 Dist 0.51 cm
3 Dist 0.49 cm



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