

**DATE PRESENTING CLINICAL SIGNS**

1/18/23 P acting normal at home, presented for PE and Pre op BW. PE - WNL - umbilical hernia present. p has 1 past episode of GE upset that landed p in ER in July. O mentioned after that for - 6 months fed p only chicken, then when informed of the nutritional inadequacy of that diet started adding dry do food back in

PATIENT

Bryn Gale

Current Medications: None.

Lab Results: ALT 309. Bile acid panel - pre - 23.3, Post 46.0

Date of Previous IntraPet Ultrasound: No previous.

SPECIES

Canine

Sedation: Torbugesic IV.

Stat Report: Not requested.

Imaging Performed By: Stephanie Warga RDCS, RVT.

BREED

Shih Tzu

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

SEX

Intact Female

AGE

2/9/22

The right kidney is normal in size (3.2 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

WEIGHT

8.42 Pounds

The left kidney is normal in size (3.37 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

INTERPRETED BYBeth Johnson, DVM
DACVIM**Adrenal Glands**

The right adrenal gland is normal in size (1.59 cm long x 0.37 cm at the cranial pole and 0.41 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

HOSPITAL NAME

Northwind AH

The left adrenal gland is normal in size (1.33 cm long x 0.33 cm at the cranial pole and 0.39 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

REFERRING VET

Dr. Repsher

Spleen

The 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.

INVOICE

44326

Liver

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Portal vein appears normal size with a 1:1 portal vein to vena cava ratio.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). 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 (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

Both ovaries are visualized without evident ovarian pathology noted. The uterus is diffusely mildly fluid distended.

ULTRASONOGRAPHIC FINDINGS

- Relatively unremarkable/normal abdomen

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

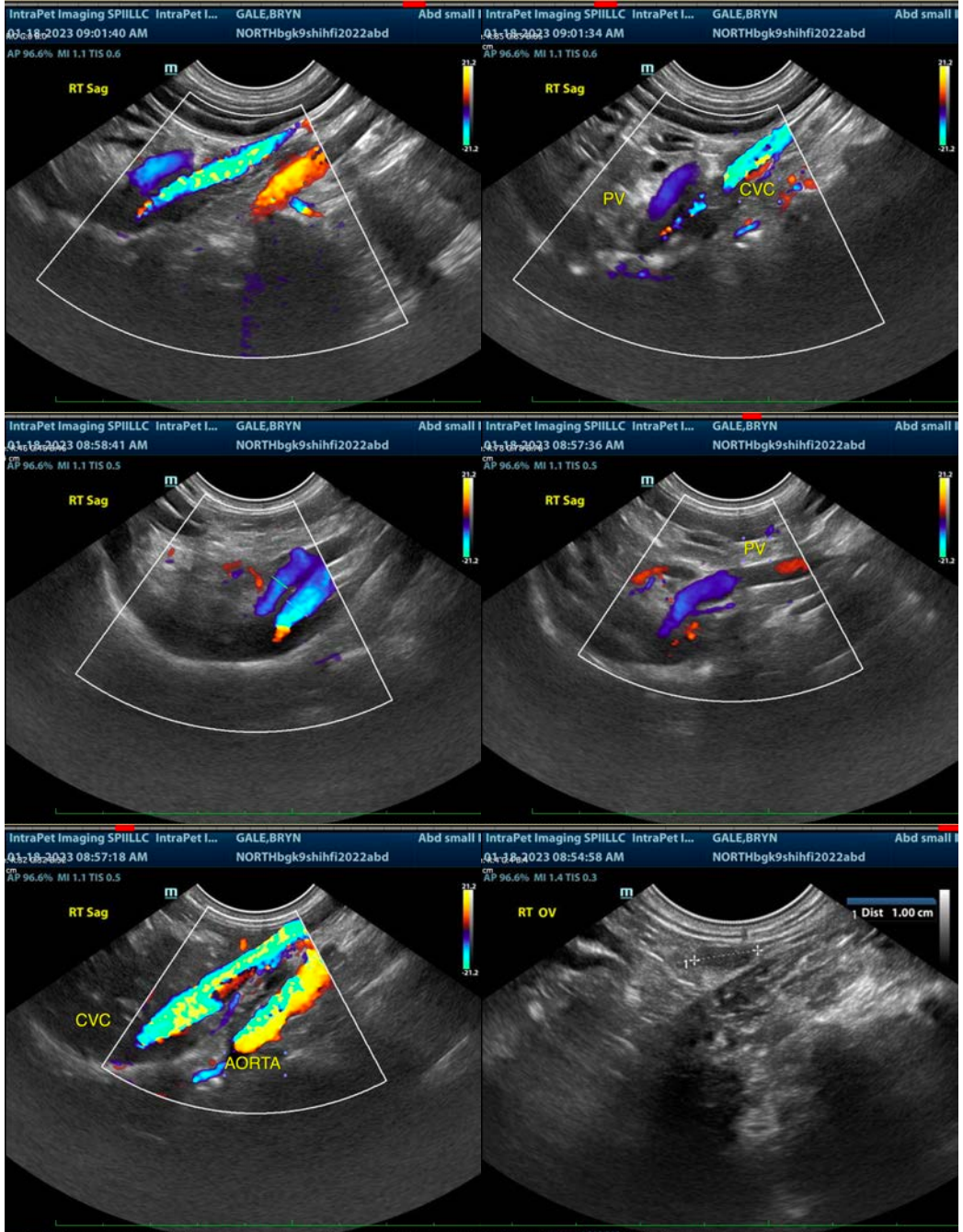
Given the appearance of the portal vein in these images, an extrahepatic portosystemic shunt is very unlikely. Therefore, the mildly increased bile acids are likely secondary to a hepatopathy of other underlying etiology such as Leptospirosis, or potentially a different vascular anomaly such as microvascular dysplasia, or mild increase in bile acids can occur with gastrointestinal disease as well. Given this patient's historical gastrointestinal upset, recommendations include:

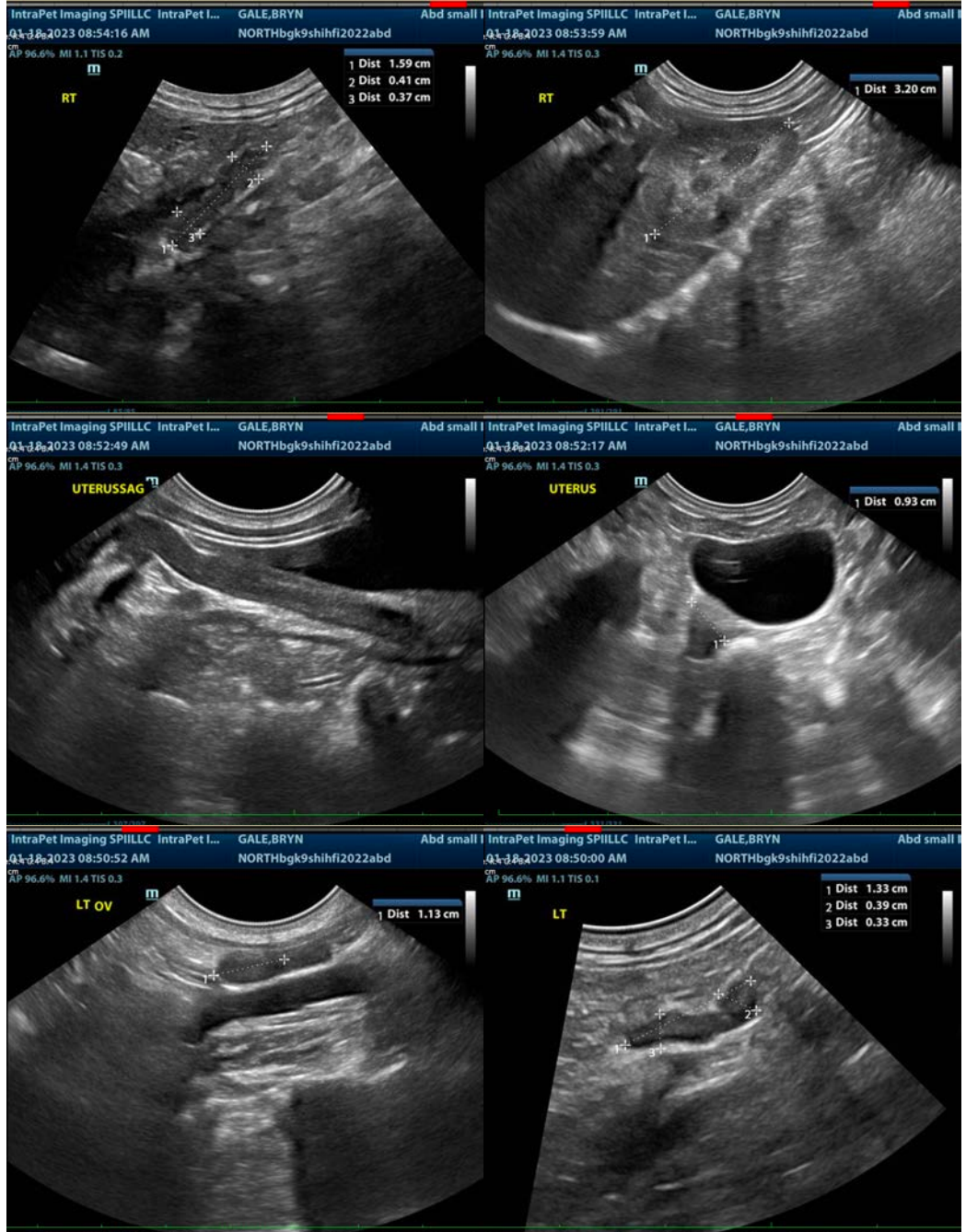
A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

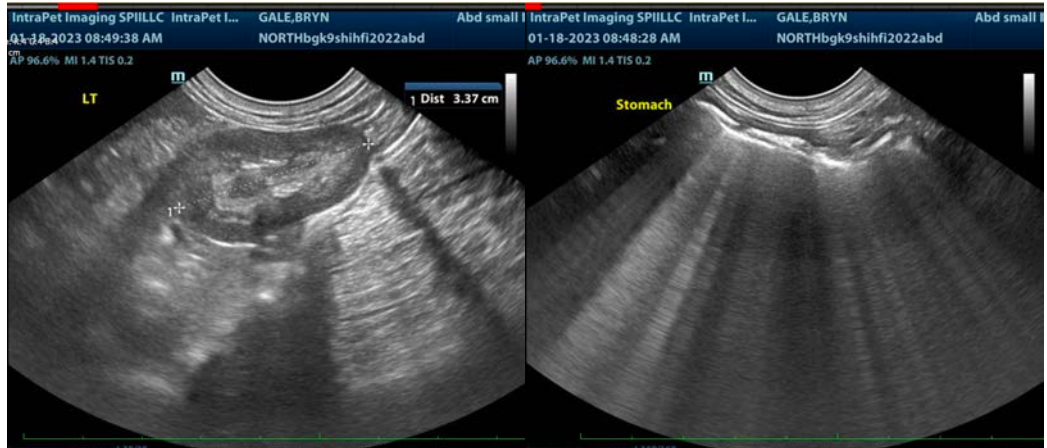
Testing for Leptospirosis is also recommended.

In the meantime, empirical deworming with a 5-day course of Panacur as well as hepatic nutraceuticals, a course of broad-spectrum antibiotics, and, if gastrointestinal signs persist or return, transition in diet to a hydrolyzed protein diet could be considered.

If liver enzymes remain increased and/or progress without another underlying diagnosis obtained prior to surgery, then liver biopsy at the time of patient spay is recommended.







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.

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