

**DATE PRESENTING CLINICAL SIGNS**

3/20/23

**PATIENT**

Beonca Garnder

**SPECIES**

Canine

**BREED**

Lhasa Apso Mix

**SEX**

Spayed Female

**AGE**

3/19/2008

**WEIGHT**

14.8 Pounds

History: Continued care - Dehydrated - Vomiting - Diarrhea - Recommend: IVF, CPL test, AUS for renal failure. Vet Suggested Iv, Spec Cpl Test- Diet: Natures recipe small bites + Purina pro plan digestive care, cheerios - weight loss, shred carrot, chicken and rice - Vomiting Last Wednesday Started... Four Times, Did Not Find It Again Until This Morning... One Time According to O: - no real medical hx O doesnt think she had bloodwork prior to 3/17. O has been giving lytes from amazon through baby dropper in mouth. O discussed out patient if responds- did well on anti-nausea and SQ fluids- O willing to do sq fluids at home. O was fine with out patient until she vomited. Mr paying for it - Understands Heart murmur risky with fluid, Vomiting and diarrhea - Had wellness check on monday declined bloodwork since she seemed fine- saw more drastic decline - Energy seemed better today then vomited -- P has been urinating - O doesnt want to risk her pain for children to be back understands risk for decline but would like everyone to be present if possible. Date: 03-19-2023 Notes: rDVM record Fullerton: 3/17 records - Suspect chronic renal failure vs pyelonephritis vs pancreatitis, dental disease, Depressed ,dehydrated, heart murmur - Given Cerenia SQ Bloodwork 3/17/23: CBC/CHEM/LYTES HCT 45%, WBC low normal 5k, Neu wnl, Low eos, PLT wnl, SDMA 31, Cres 3.9, BUN 134, Phos 11.4 ALKP 311 ALKP high; Lipase high Lytes wnl O states a UA was performed – no bacteria was seen (Do NOT have record of this) O DECLINED xrays

Current Medications: None listed.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****INTERPRETED BY**Beth Johnson, DVM  
DACVIM**Urinary System**

Urinary bladder is adequately 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.

**HOSPITAL NAME**Animal Emergency  
Hospital

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 pyelectasia (in the right kidney), mineral or infarcts observed. The left kidney measures 3.86 cm. The right kidney measures 3.21 cm. Mild pyelectasia is present in the left kidney.

**REFERRING VET**

Dr. Kalwa

**Adrenal Glands**

Left adrenal gland is normal in size (2.08 cm long x 0.64 cm at cranial pole and 0.61 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

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Right adrenal gland is normal in size (1.88 cm long x 0.75 cm at cranial pole and 0.6 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**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). Multifocal well-demarcated hyperechoic homogenous nodules are noted. Splenic vasculature appears normal.

### ***Liver***

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.

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 soft stool.

### ***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. There is no apparent lymphadenopathy.

## **ULTRASONOGRAPHIC FINDINGS**

- Age-related kidney changes with mild left kidney pyelectasia
- 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.
- Hyperechoic splenic nodules – most consistent with benign myelolipomas. Other differentials such as fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or metastatic disease cannot be ruled out, but are considered less likely.
- 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.

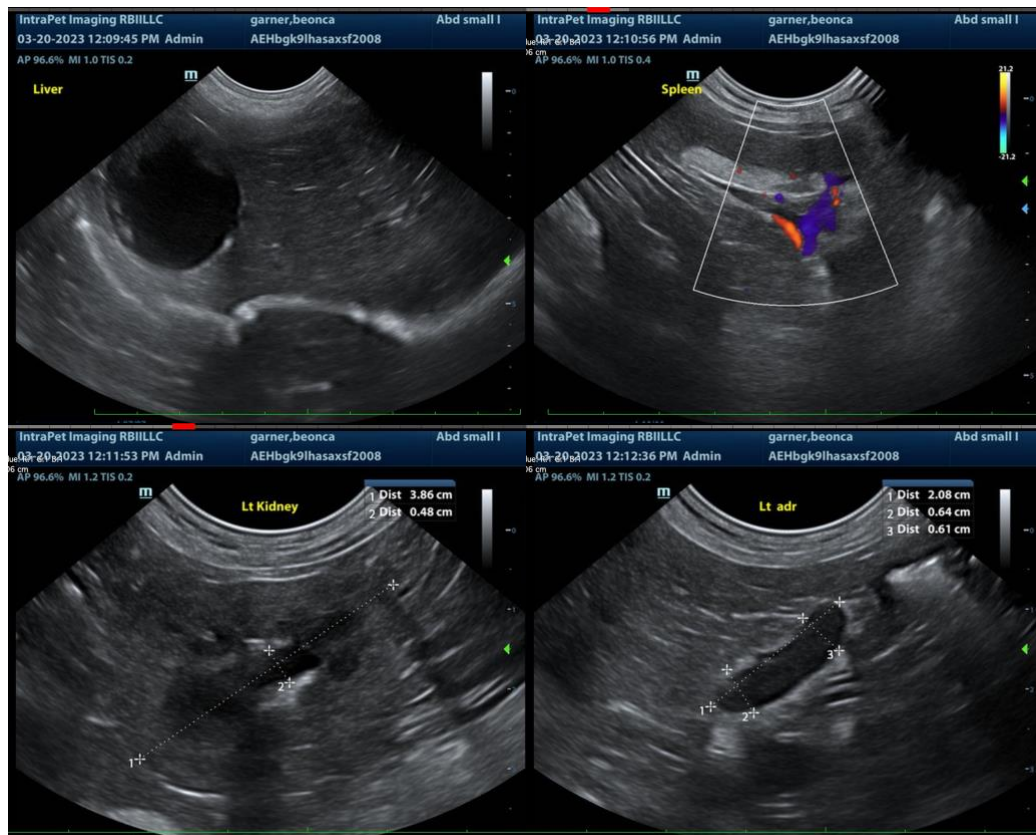
## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

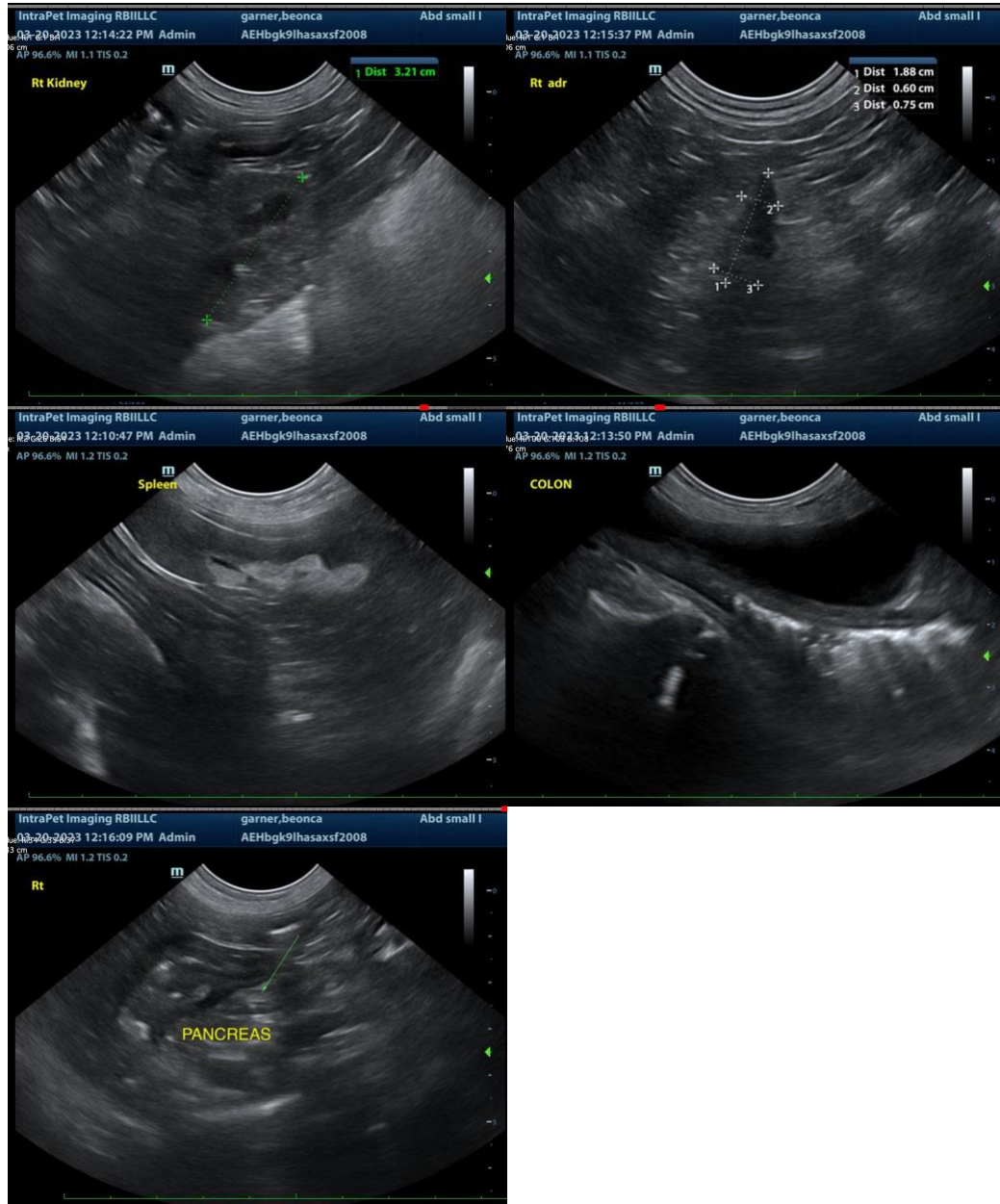
This is a relatively unremarkable geriatric abdomen. Recommendations include trying to determine a prerenal vs true renal component to the reported azotemia, if not recently evaluated, beginning with urinalysis and, if indicated based on urinalysis results, urine culture is recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended.

Testing for Leptospirosis is recommended.

A baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.

In the meantime, continued medical management, in the form of diuresis and gastrointestinal support with antiemetics, gastroprotectants, appetite stimulant (if necessary), a probiotic such as Visbiome or Provable, as well as broad spectrum antibiotics is recommended.





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