



**DATE PRESENTING CLINICAL SIGNS**

7/18/23 Hx of IMPA, ITP, and IMHA; Owner requested ultrasound

**PATIENT** Current Medications: Denamarin Advanced QD, Prednisone 5mg PO QD, Ofloxacin OU BID PRN, OTC Cranberry Supplement QD, Multiple holistic/homeopathic supplements daily.

Nala Bish Date of Previous IntraPet Ultrasound: 6/21/22. See attached.  
Sedation: Not required to complete full diagnostic ultrasound.

**SPECIES** Stat Report: Not requested.  
Imaging Performed By: Stephanie Warga RDCS, RVT.

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

**Urinary System**

Pomeranian The **urinary bladder** revealed sand accumulation and suspended debris, a grouping of which measured approximately 1.0 cm. Striating mucus also noted. The pelvic urethra was free of evidence pathology.

**SEX**

Spayed Female

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. Mineralization noted in both kidneys, non-obstructive. Similar to prior sonogram. The left kidney measured 4.98 cm. The right kidney measured 5.12 cm.

**AGE**

11/3/13

**WEIGHT**

17.2 Pounds

**Adrenal Glands**

Both **adrenal glands** were visualized and recognized as having largely normal shape, size, position and acceptable echogenicity for this age group and breed. Some heterogeneity was noted within the adrenal parenchyma without concerning capsular distortion. These changes are likely age related but should be monitored by sonogram should the patient be suspected of having adrenal disease. The right adrenal gland measured 1.83 cm x 0.42 cm at the caudal pole and 0.54 cm at the cranial pole. The left adrenal gland measured 1.78 cm x 0.40 cm at the caudal pole and 0.38 cm at the cranial pole.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**Spleen**

The **splenic** nodule noted on the prior sonogram was increased in size to 1.5 cm x 1.0 cm at the caudal pole.

**HOSPITAL NAME**

Happier at Home  
Mobile Vet

**Liver**

The **liver** was progressively enlarged with coalescing hypoechoic micronodular changes in the midst of hyperechoic parenchyma with attenuating sound beam. Gallbladder calculi noted. Lobar biliary calculi noted.

**REFERRING VET**

Dr. Haskin

**Gastrointestinal**

There was some residual chyme and gas was noted in the **stomach**, yet not pathological. This is consistent with end post prandial presentation. Transit of chyme into the small intestine was normal. Curvilinear patterns were maintained throughout the GI tract. No evidence of pathology. 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.

**INVOICE**

44109

**Pancreas**

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon

imaging (+ Murphy sign) was present or if the patient is focally painful in subxyphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

### **Other**

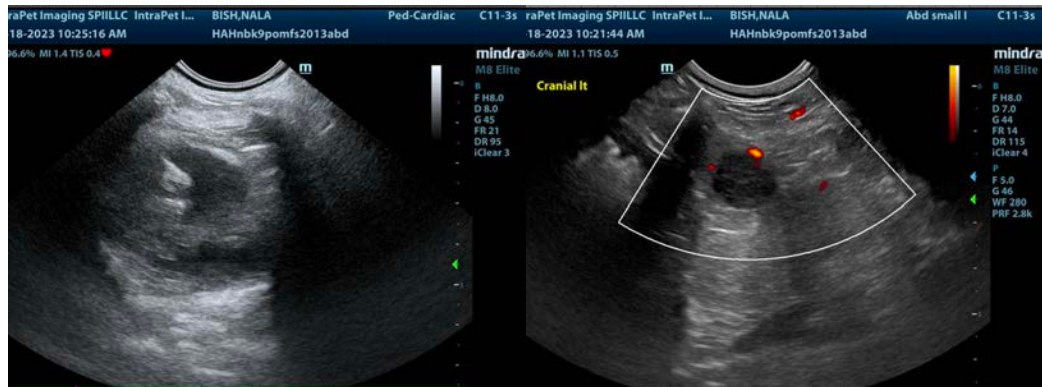
Rapid view of the heart revealed non evident pathology in the right auricle or pericardium.

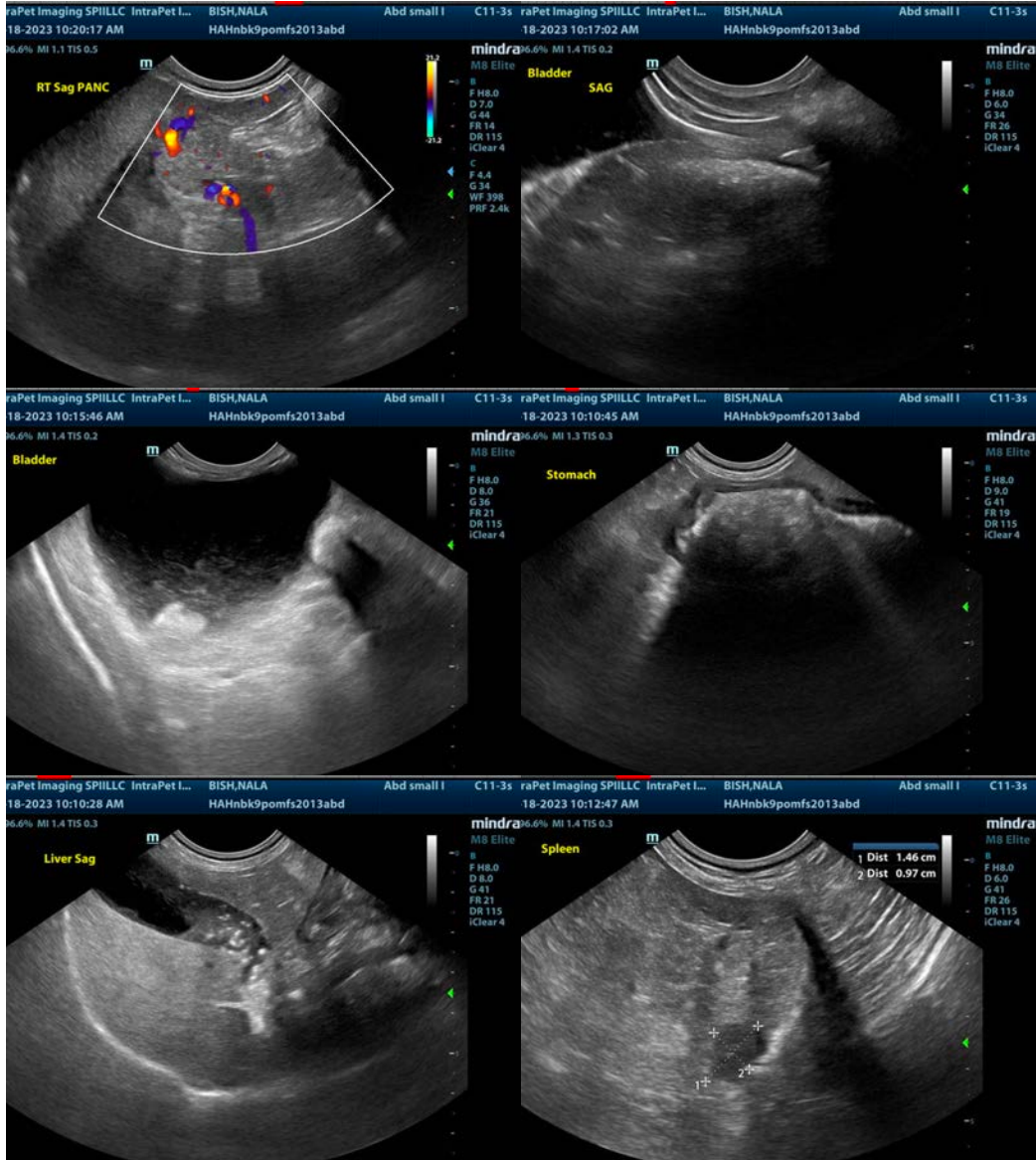
### **ULTRASONOGRAPHIC FINDINGS**

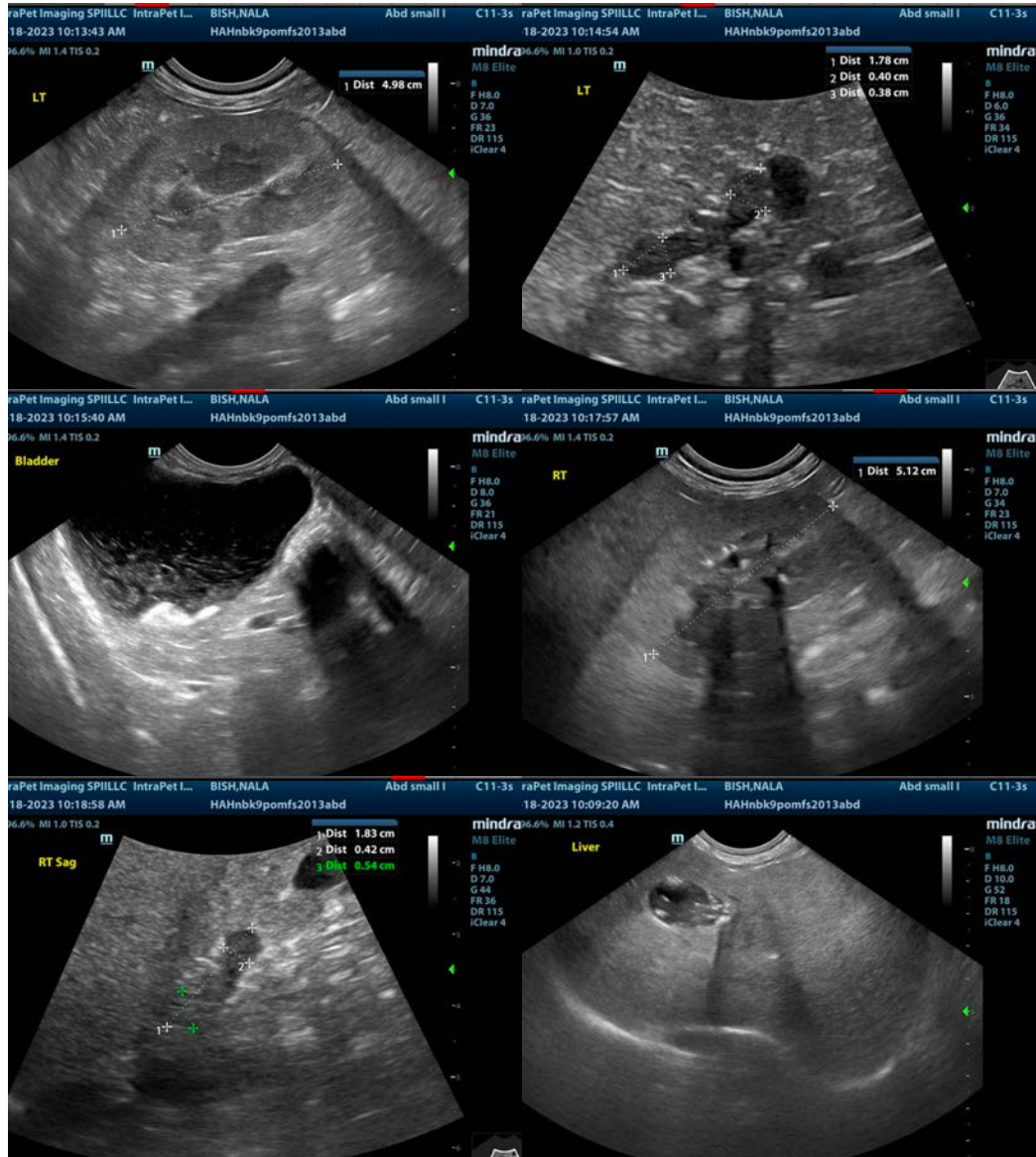
- Metabolic hepatopathy with gallbladder calculi
- Splenic nodule
- Post-prandial presentation
- Bladder sand and calculi
- Age related pancreatic changes, possible low-grade inflammation
- Age related renal changes

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

Bile acid profile warranted, given the progressive hepatic changes. The splenic nodule is concerning, and transformation to a neoplastic event may be occurring. FNA indicated or direct splenectomy. Liver biopsy and gallbladder expression, cystotomy could be considered at the same time. Cholecystectomy could also be justified. Calculi appeared to be mobile when imaged in different dependent positions. Bile acid profile indicated. Full CBC/Chem/UA indicated if not already performed. Screening FNA of the liver and splenic nodule could also be considered. However, the splenic nodule is expansive upon the capsule, which is concerning for transformation to a neoplastic process. Significant progression has occurred from the prior sonogram. Chest radiographs warranted to assess for comorbidities.







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.

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