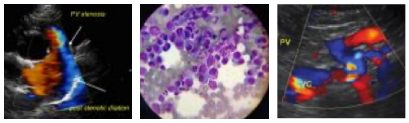
IMAGING PERFORMED BY

IntraPet.com

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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**DATE**

4.6.23

**PATIENT**

Sadie Wood

**SPECIES**

Canine

**BREED**

German SH Pointer

**SEX**

Female Spayed

**AGE**

4/16/2014

**WEIGHT**

95 lbs

**INTERPRETED BY**

Andrea Nicastro, DMV, Diplomate DACVIM (Small Animal Internal Medicine)

**HOSPITAL NAME**

Abbey AH

**REFERRING VET**

Dr. Kuhlman

**INVOICE**

12689

## PRESENTING CLINICAL SIGNS

Presented 3/9/23, unwillingness to go on walks. A Superchem and CBC was sent and found markedly elevated ALT & ALKP. Patient was started on Denamarin and on repeated bloodwork the showed increased in both values.

Current Medications: Denamarin 2 SID, Metronidazole 500mg 1 SID
Enrofloxcin 136mg 1 BID.
Lab Results: 3/9/23- ALT 190, ALKP 3248, BUN/CREA 33, PSL 533. 3/16/23- ALT 275, ALKP 3309, BUN/CREA 39, PSL 368.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Andi Parkinson, BS, RDMS.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

The left kidney is normal in size (8.02 cm in length) with a normal shape, architecture and smooth peripheral margins. The cortex is isoechoic relative to the spleen. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney is normal in size (7.89 cm in length) with a normal shape, architecture and smooth peripheral margins. The cortex is isoechoic relative to the spleen. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. A small cortical cyst is observed at the lateral aspect. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

### *Adrenal Glands*

The left adrenal gland is upper limits of normal size (0.79 cm at cranial pole) (0.83 cm at caudal pole) (3.49 cm in length) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is in normal size (1.19 cm at cranial pole) (0.78 cm at caudal pole) (3.80 cm in length) with a normal shape and smooth peripheral contours. A 1.82 x 0.88 cm ill-defined hyperechoic nodule/area is observed a the cranial- to mid-aspect. Glandular echogenicity and detail at the caudal aspect are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

### *Spleen*

The spleen is subjectively normal in size with a normal capsular contour. There is appropriate echogenicity and echotexture. A 1.41 cm irregular, hypoechoic, slightly vascular nodule is observed approximately mid-spleen. Splenic vasculature is normal.

### *Liver*

The liver is subjectively prominent to enlarged with slightly swollen peripheral contours. The parenchyma is hyperechoic relative to the spleen and attenuating. Numerous, small, ill-defined hypoechoic nodules are observed throughout the organ. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A 1.27 cm aggregation of echogenic-to-mineralized debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

***Gastrointestinal***
The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

***Pancreas***
The right limb is prominent in size with minimal deviation from the normal peripheral contours. The parenchyma is mildly hypoechoic relative to surrounding omental fat and mottled in appearance, with a few, small, ill-defined hypoechoic nodules. The pancreatic duct is not overtly dilated.

***Free Abdomen***
There is no obvious evidence of free fluid. A 2.01 cm sublumbar lymph node is visualized in one still image.

## ULTRASONOGRAPHIC FINDINGS

### Primary Findings

- The hepatic parenchymal changes could be consistent with a benign process (i.e., regenerative nodular hyperplasia and or vacuolar hepatopathy). Alternatively, infiltrative or inflammatory disease are also possible.

- The splenic nodule is concerning for an emerging tumor (i.e., sarcoma, round cell tumor). However, a benign focus of lymphoid hyperplasia, extramedullary hematopoiesis or similar, cannot be excluded.

### Secondary Findings

- Emerging cholelith

- The pancreatic changes are suggestive of age-related remodeling +/- benign nodular hyperplasia. A prior episode of pancreatitis is also possible.

- The prominent sublumbar lymph node is likely reactive with a lower possibility of infiltrative disease.

- Bilateral nonspecific chronic renal changes

- The hyperechoic area/nodule in the right adrenal gland may be a normal variant for this patient or may represent hyperplastic change or an emerging tumor.

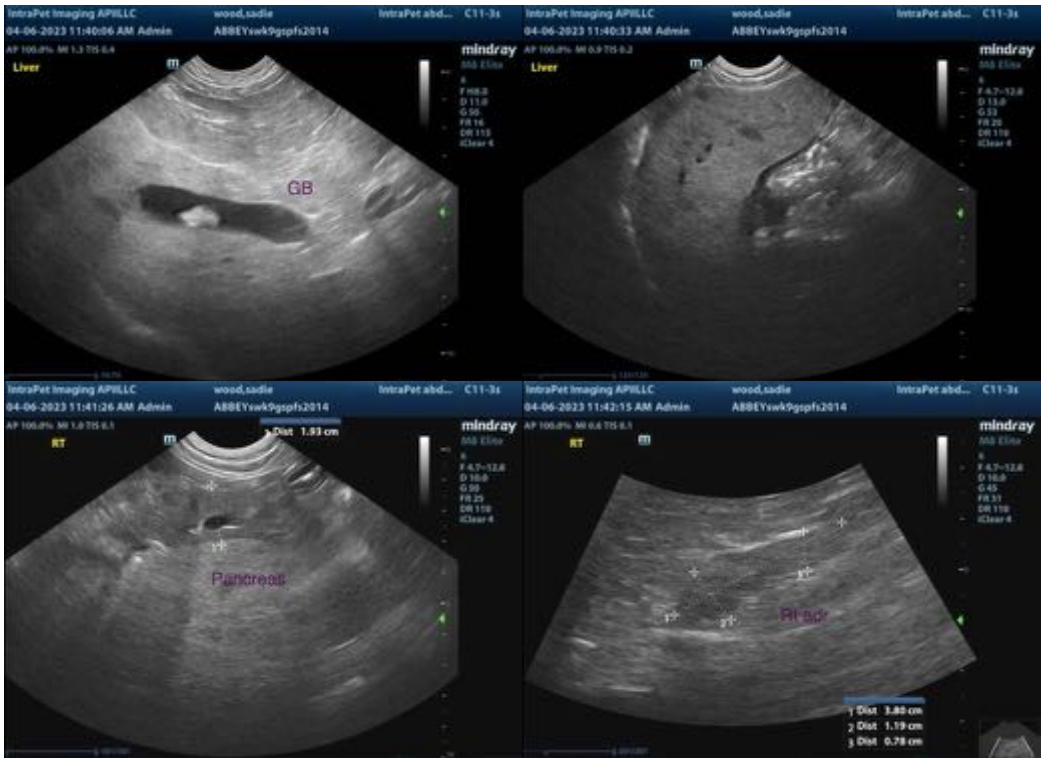
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

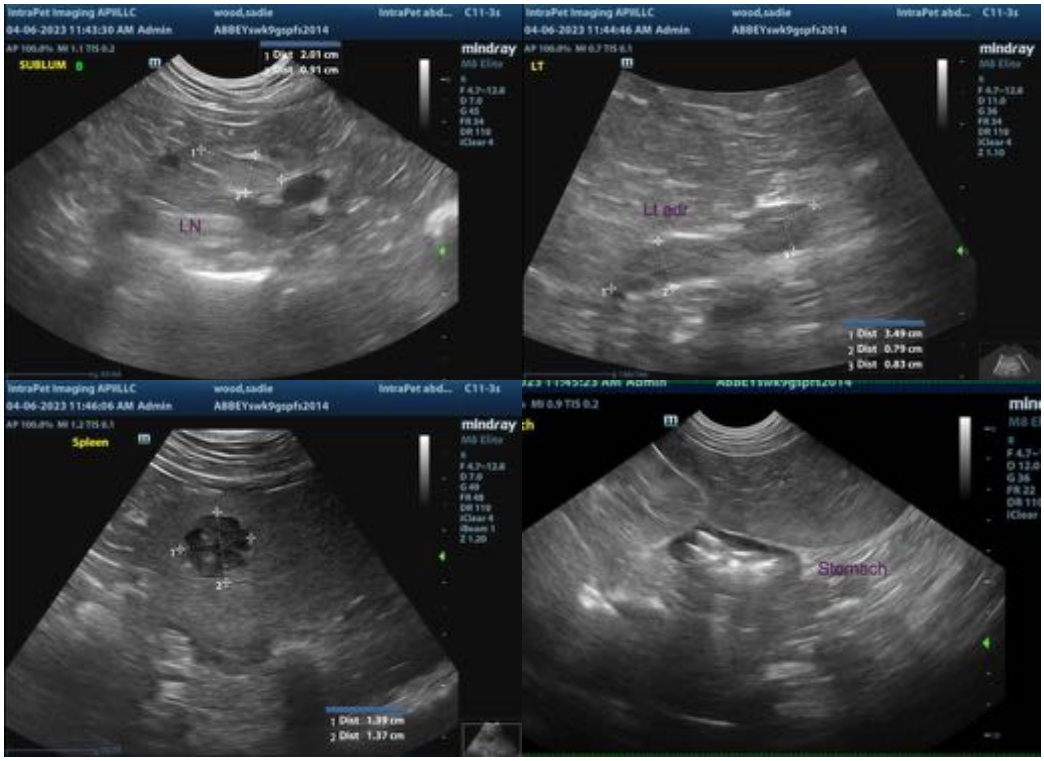
- Regarding the hepatic changes, consider a fine-needle aspirate or biopsy (i.e., laparoscopic, or surgical). If biopsies are pursued, hepatic copper quantitation should also be performed and aerobic and anaerobic bile cultures obtained. Pre-and postprandial serum bile acids can also be considered to evaluate hepatic function.

- Regarding the splenic nodule, a fine-needle aspirate is recommended (if clotting status is appropriate). A 25-gauge needle should be used and the patient should be monitored sonographically for 5-10 minutes post-aspiration to assess for iatrogenic hemorrhage.

- Three-view thoracic radiographs are also recommended to assess for pulmonary metastatic disease.

- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop.






**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.

**Andrea Nicastro**, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
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