

**DATE PRESENTING CLINICAL SIGNS**

3/22/23

ALP elevated; has been in the past and less than last check however markedly elevated. concern is that elevation is secondary to Cushings however would rec AUS to r/o true hepatic ds vs other.

PATIENT

Cinnamon Smith

Current Medications: Thyro tabs 0.2mg, Vetoryl 5mg

Lab Results: T4 wnl, cont with current dose. ALP elevated; has been in the past and less than last check however markedly elevated.

SPECIES

Canine

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Stephanie Warga RDCS, RVT.

BREED

Shih Tzu

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Spayed Female

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.

AGE

1/1/11

The right kidney is normal in size (4.09 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 or infarcts observed. Non-obstructive dystrophic mineralization noted as well as multiple small cortical cysts.

WEIGHT

10.78 Pounds

The left kidney is normal in size (3.75 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 or infarcts observed. Non-obstructive dystrophic mineralization noted as well as multiple small cortical cysts.

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

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Some parenchymal heterogeneity is present without concerning capsular distortion. Visible surrounding vasculature appears normal. The left adrenal gland measures 2.37 cm long x 0.84 cm at the cranial pole and 0.90 cm at the caudal pole. The right adrenal gland measures 1.9 cm long x 0.81 cm at the cranial pole and 0.35 cm at the caudal pole.

HOSPITAL NAME

Eldersburg VH

REFERRING VET

Dr. Alper

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). No focal nodules or masses are observed. Multifocal mineral foci are noted. Splenic vasculature appears normal.

INVOICE

46083

Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. 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 stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) 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 (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.

PRIMARY FINDINGS

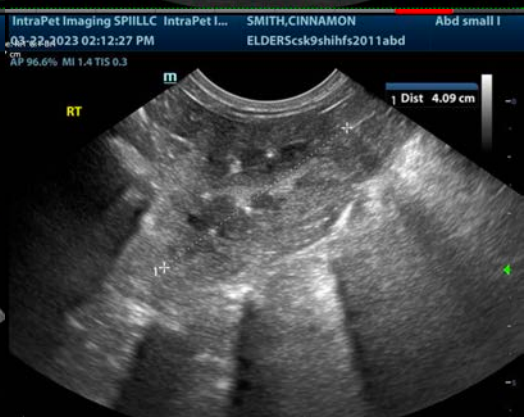
- **Bilateral adrenomegaly** – consistent with this patient's history of hyperadrenocorticism and Vetoryl therapy.
- **Hyperechoic hepatomegaly** - This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible, but considered less likely.
- **Mild 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.
- **Spleen mineralization** – This is a benign change but can be associated with endocrinopathies, especially hyperadrenocorticism.

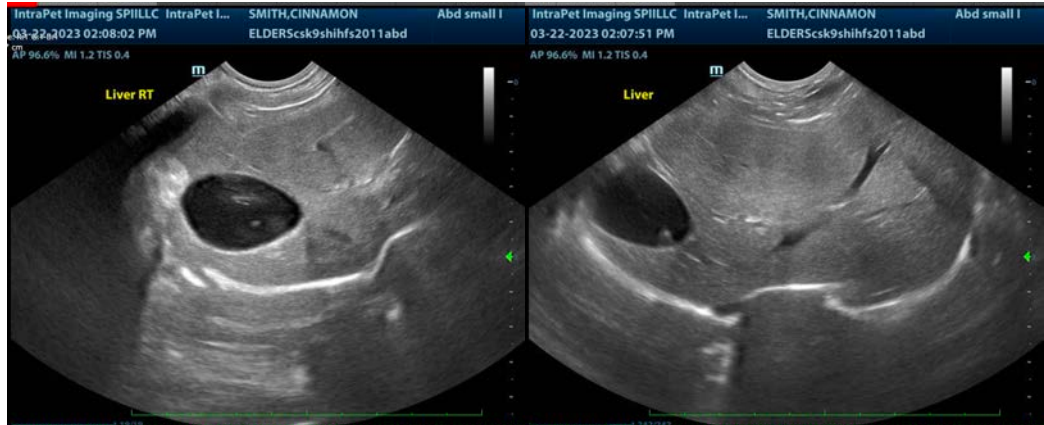
SECONDARY FINDINGS

- Non-obstructive dystrophic mineralization in the kidneys bilaterally and bilateral cortical cyst.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

These ultrasound findings are all generally normal/expected for a patient with hyperadrenocorticism. Continued follow up, management, etc. of hyperadrenocorticism is recommended. Given this patient's hyperadrenocorticism, if not recently evaluated, Urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended. Blood pressure is also 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.

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