

**DATE PRESENTING CLINICAL SIGNS**

7/19/22 P has had a chronic history of increased drinking. Increase ALKP on labs-939, presented for hematachezia and vomiting. Rads- no obvious fb

PATIENT IVF, GI support, NI in eating, no further v/d, abdomen still painful

Dottie Burkman Current Medications: Cerenia, Buprenorphine, Protonix, Metronidazole.

Date of Previous IntraPet Ultrasound: No previous.

SPECIES Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**BREED**

Dachshund X

SEX

Spayed Female

AGE

6/12/14

WEIGHT

75.4 Pounds

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Animal Emergency
Hospital

REFERRING VET

Dr. Roper

INVOICE

39654

Urinary System

Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Apical urinary bladder wall is diffusely thick (1.4 cm). Mucosa is hyperechoic and irregular with multiple pedunculated masses extending into the lumen of the bladder. No cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

The right kidney is normal in size (7.67 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.

The left kidney is normal in size (7.71 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.

Adrenal Glands

The left adrenal gland is enlarged (3.17 cm long x 0.98 cm at the cranial pole and 1.87 cm at the caudal pole) with mild heterogenous parenchymal changes. Swollen capsular expansion is noted without evident capsular escape or vascular invasion.

The right adrenal gland is enlarged (3.3 cm long x 1.44 cm at the cranial pole and 0.92 cm at the caudal pole) with mild heterogenous parenchymal changes. Swollen capsular expansion is noted without evident capsular escape or vascular invasion.

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.

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. Several 1-2 cm diameter anechoic cysts are noted throughout the parenchyma. 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.

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. At the ileocecolic junction, the colon is echogenic fluid and gas distended.

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.

ULTRASONOGRAPHIC FINDINGS

- **Bilateral adrenal masses** – consistent with adenoma or possibly hyperplasia. Early pheochromocytoma cannot be ruled out. Interpret in combination with clinical signs of hyperadrenocorticism or other adrenal disease. Given the bilateral occurrence of these nodules/masses, hyperplasia secondary to pituitary dependent hyperadrenocorticism is considered the top differential.
- **Polypoid Cystitis** – Urinary bladder wall changes are most consistent with polypoid cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely given the appearance of the polyps.
- **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.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

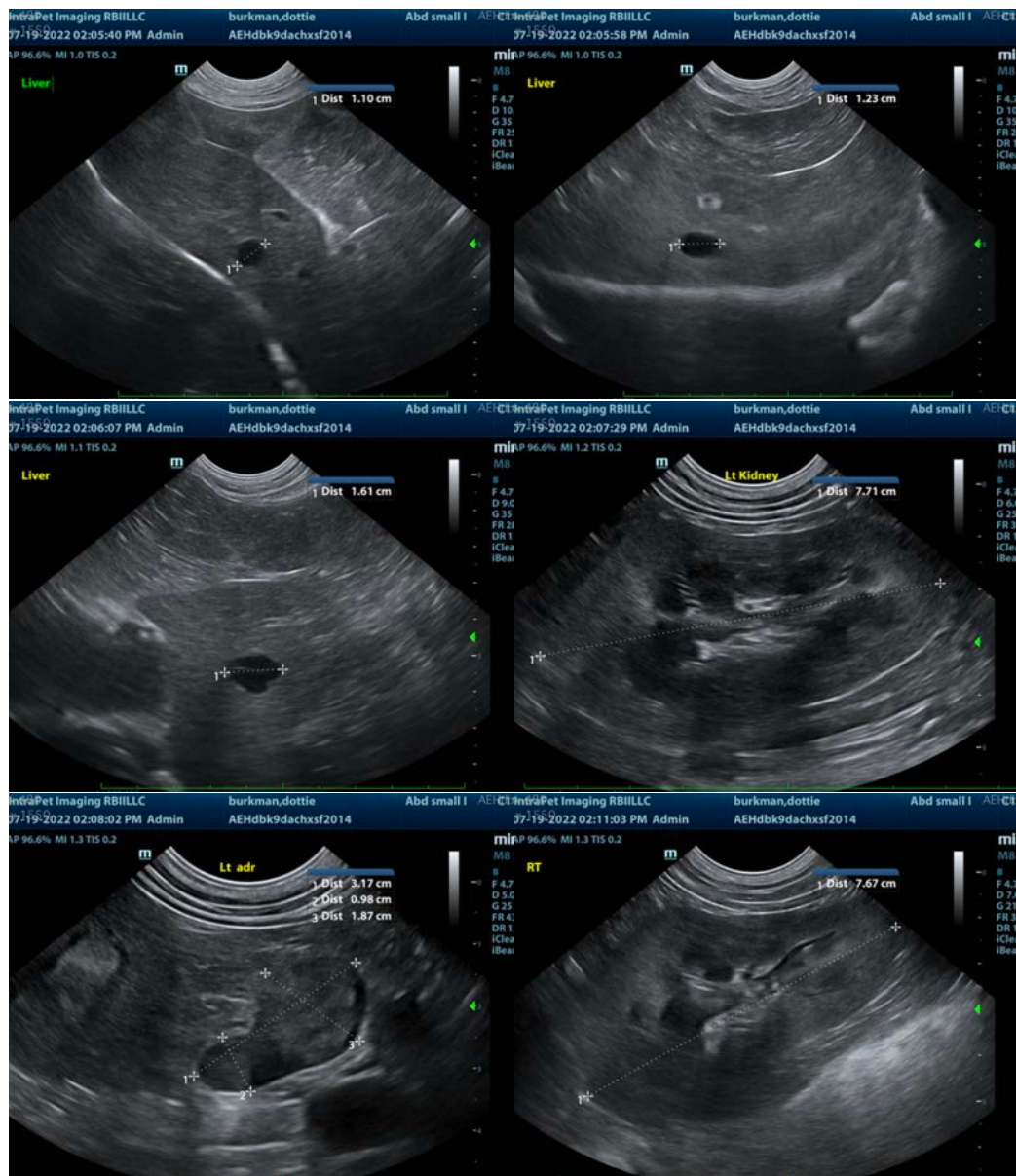
The described adrenal gland, liver and gallbladder changes are all suggestive of hyperadrenocorticism. If clinical signs of hyperadrenocorticism, such as polyuria, polydipsia, polyphagia, panting, hair loss, hypertension, etc. are present, testing for hyperadrenocorticism with a LDDS test is warranted. If a LDDS test has been evaluated with a normal result, investigation of possible atypical hyperadrenocorticism with a full ACTH stimulation adrenal panel to the University of Tennessee could be considered. If clinical signs are not present, monitoring is recommended with testing pursued when/if clinical signs develop. If not recently evaluated, blood pressure is recommended. If not recently evaluated, a urinalysis and, if indicated based on urinalysis results, urine culture are also recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended.

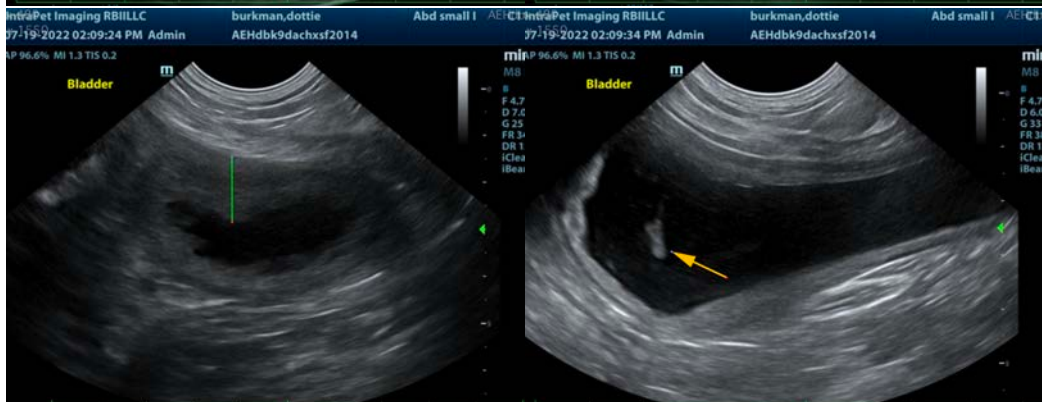
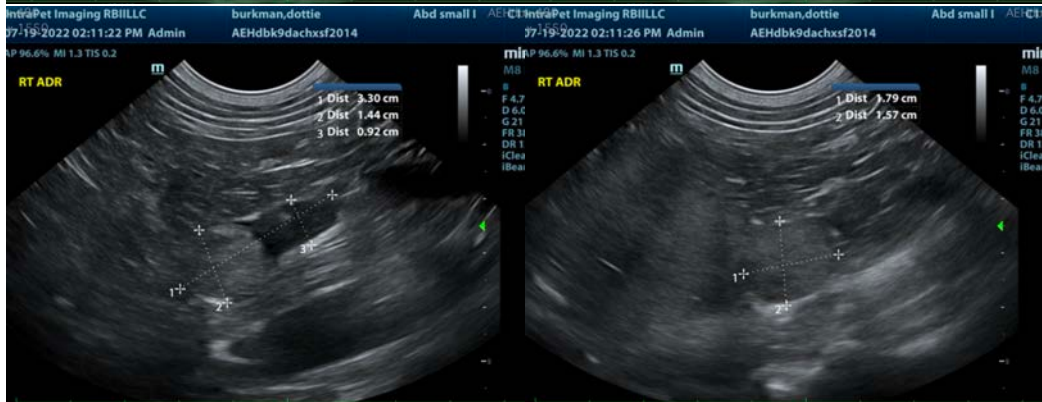
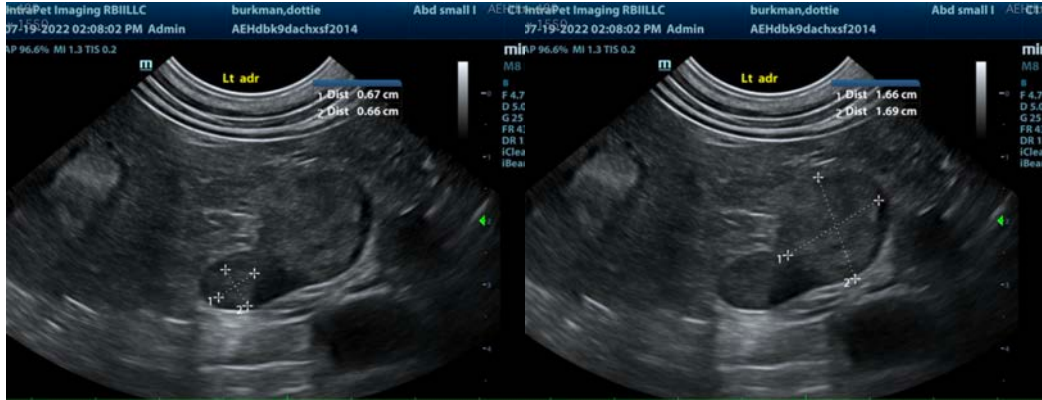
However, hyperadrenocorticism does not typically result in patient illness, gastrointestinal signs, and/or the hematochezia reported in this patient. therefore, pursuing a diagnosis of hyperadrenocorticism with

hormone testing should be postponed until the current episode of GI upset is resolved and the patient is stable and back to normal. In the meantime, recommendations include:

- Fecal exam
- A fecal enteropathogen PCR panel to Texas A&M GI Laboratory could be considered for further evaluation of possible infectious disease, if not already evaluated.

Additional therapeutic recommendations to what is currently reportedly in place include an appetite stimulant, empirical deworming with a 5-day course of Panacur, as well as a probiotic fiber supplementation to the diet, and/or transition to a higher fiber diet to treat acute gastroenteritis/hemorrhagic gastroenteritis, etc.





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