

**PATIENT**

Zoey Zucker

SPECIES

Canine

BREED

Mix

SEX

Spayed female

AGE

12 years

WEIGHT

13.4 kg

INTERPRETED BYBeth Johnson, DVM
DACVIM**IMAGING PERFORMED BY**

Amy Mayhew, LVT

HOSPITAL NAME

SVS Imaging Michigan

REFERRING VET

Burrwood Veterinary

INVOICE

42227

DATE

10/31/22

PRESENTING CLINICAL SIGNS

History: Cushing's. Depressed and lethargic at home- Cause unknown. Consider secondary to over suppression of adrenal glands vs. other metabolic/endocrine vs. pain vs. primary/secondary GI
 BW pending, ACTH stim / Thyroid panel wnl

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**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.

Left kidney is normal is size (5.82 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.

Right kidney is normal is size (X 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 plump/swollen in size with normal shape, contour and mildly heterogenous parenchymal changes. Swollen capsular expansion was noted without evident capsular escape or vascular invasion. A discrete, hyperechoic nodule is noted in the cranial pole. The left adrenal measured 1.0 cm at the cranial pole and the caudal pole measured 0.79 cm.

Right adrenal gland is normal in size (0.67 cm at cranial pole and 0.5 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

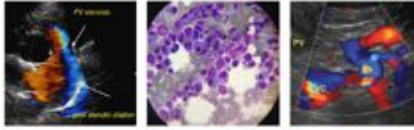
Spleen

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 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.

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Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is 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 mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is 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 observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. 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**Primary Findings**

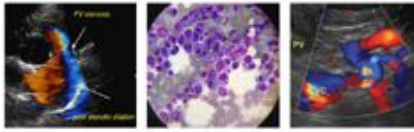
- **Left adrenal mass** – consistent with adenoma or possibly hyperplasia. Early pheochromocytoma cannot be ruled out. Interpret in combination with clinical signs of hyperadrenocorticism or other adrenal disease.

Secondary Findings

- **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.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

1. General metabolic health screening including CBC, chemistry panel, electrolytes and urinalysis as is reportedly already pending is recommended.
2. Given the patient's history of hyperadrenocorticism combined with not feeling well a blood pressure is recommended if not recently evaluated.



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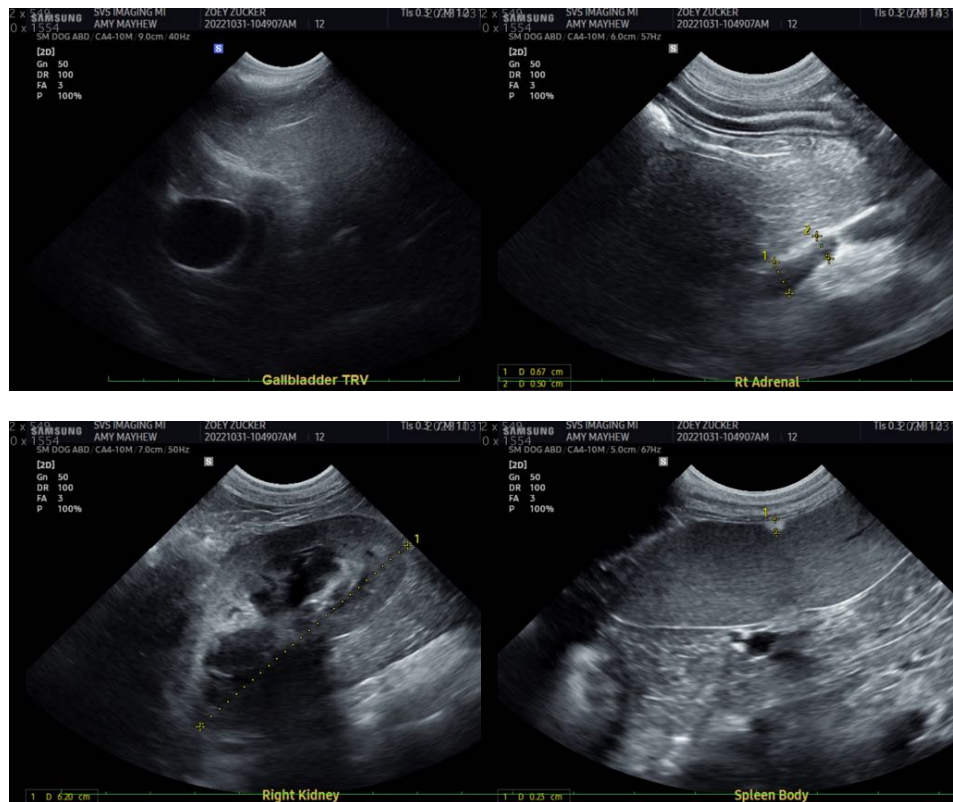
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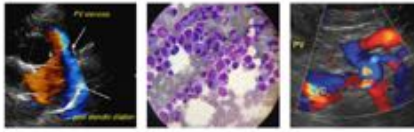
- The ACTH stimulation test was reportedly normal. The exact values are not reported. However, given the patient's lethargy and depression consideration may still be given to discontinuing the therapy for hyperadrenocorticism until the cause of the patient not feeling has been identified and treated and/or see if discontinuing the therapy helps the patient feel better as some patient's are depressed despite normal cortisol when over having a negative reaction to hyperadrenocorticism therapy.

Additionally, while rare if this is pituitary dependent hyperadrenocorticism a pituitary macroadenoma could result in lethargy and depression, potentially decreased appetite in which case advanced imaging such as CT scan of a pituitary gland can be considered. Having said that the appearance of the adrenal glands are more consistent with adrenal dependent hyperadrenocorticism and if that finding is supported with a low-dose Dexamethasone suppression test then therapy can be discontinued all together in a left adrenalectomy pursued to definitively rule out, not necessarily suspected, but possible infiltrative malignance neoplasia.



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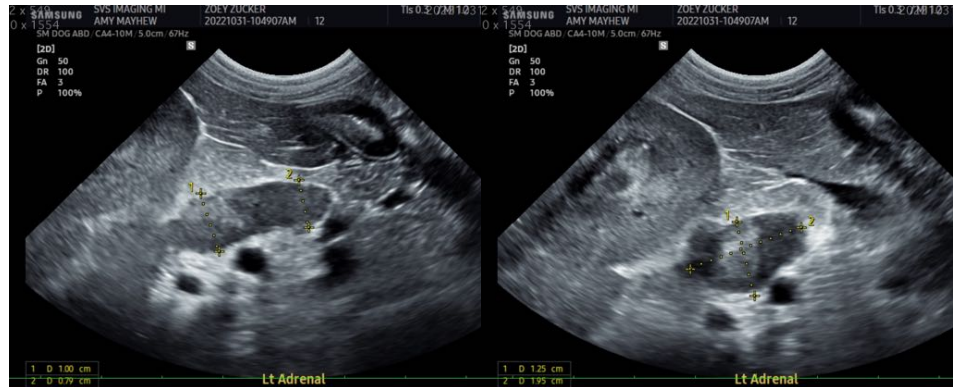
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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