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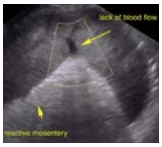
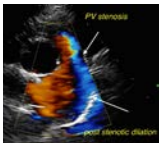
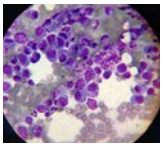
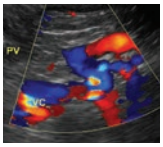
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

**PATIENT**

Zip Simington

**SPECIES**

Canine

**BREED**

Australian Cattle Dog

**SEX**

Spayed Female

**AGE**

9 Years

**WEIGHT**

19 kg

**INTERPRETED BY**

Beth Johnson, DVM DACVIM

**IMAGING PERFORMED BY**

Dr. Callihan – PCMV

**HOSPITAL NAME**

Becky Callihan

**REFERRING VET**

Dr. Baillee – CVVC

**INVOICE**

44918

**DATE**

8/24/23

## PRESENTING CLINICAL SIGNS

Ultrasound requested to further characterize pt's diagnosis of hyperadrenocorticism from April 2023. Only clinical sign is PU/PD. Started on Trilostaine in April.

Abnormal PE/Chem/CBC/UA Results: Cushings diagnosed via ACTH stim in April 2023: -baseline cortisol 12.8 (ref 1-5) -stim cortisol 39.4 (ref 8-17) Post trilostane levels checked in May were within desired ranges for treatment. Other history includes E.coli urinary tract infection in January 2023 and mild elevation in urine protein creatinine ratio after treatment (1.2) Chemistries remarkable only for elevation in ALKP in Jan 2023, mild at 440

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *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.

The right kidney is normal in size (6.6 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 (6.21 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*

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The left adrenal gland measures 1.06 cm at the cranial pole and 1.07 cm at the caudal pole. The right adrenal gland measures 0.95 cm at the cranial pole and 0.86 cm at the caudal pole.

### *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*

The 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 moderately distended with anechoic bile as well as 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.

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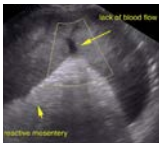
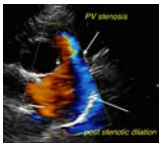
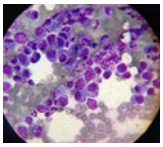
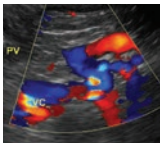

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### *Gastrointestinal*

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. 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.

The medial ilac lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

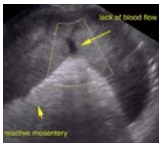
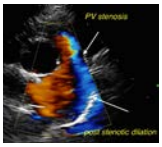
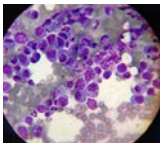
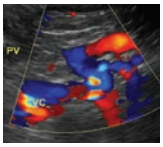
## ULTRASONOGRAPHIC FINDINGS

- **Bilateral adrenomegaly –** Given this patient's recent diagnosis of hyperadrenocorticism, this is most consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism.
- **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.
- **Reactive medial iliac lymph nodes –** infiltrative neoplastic disease cannot be ruled out but is considered less likely.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given this patient's concurrent reported history of a urinary tract infection, if not recently evaluated, a 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.

If not recently evaluated, a blood pressure is recommended.

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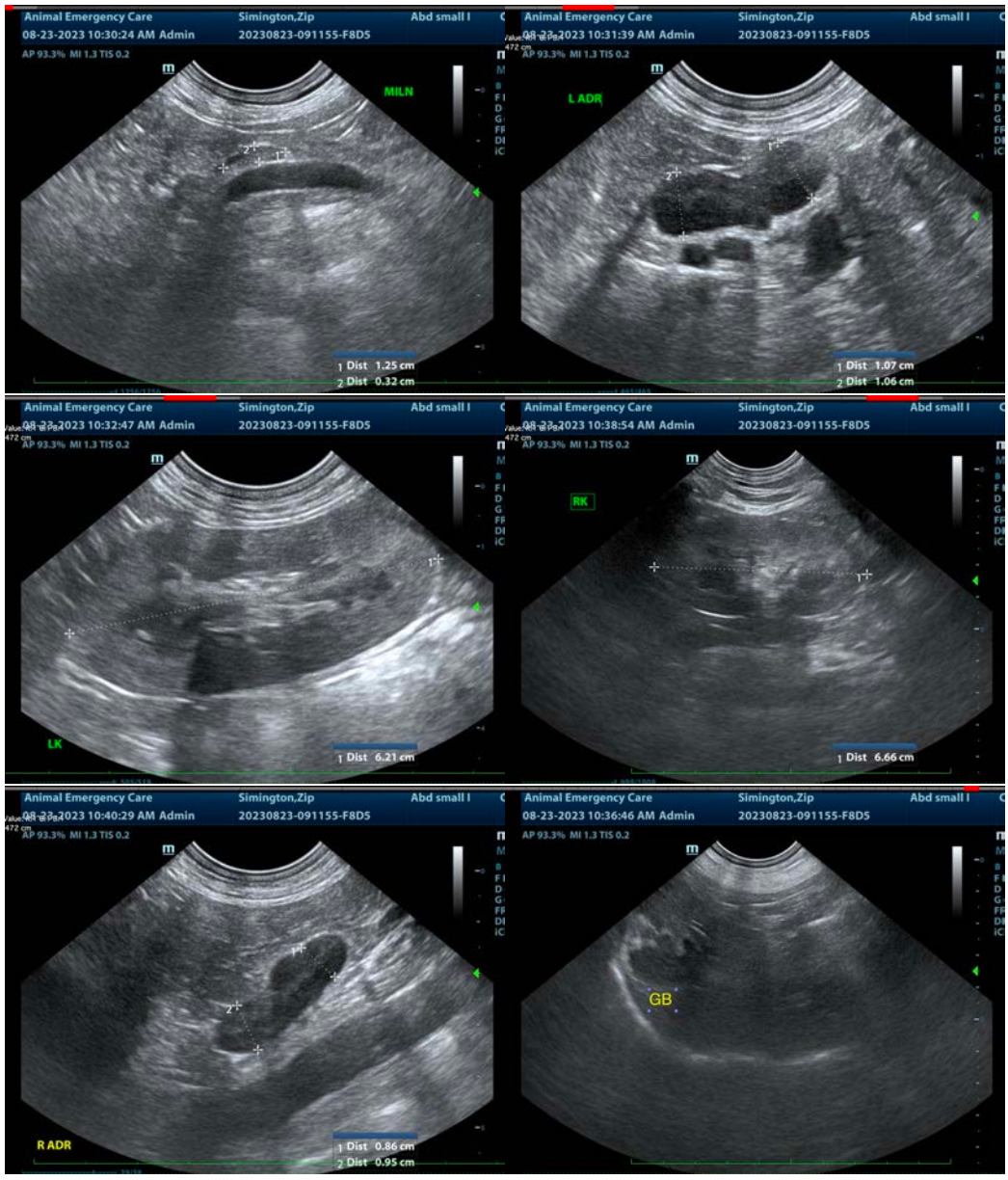
Medical management of pituitary dependent hyperadrenocorticism, as is reportedly already in place, should be continued, if tolerated, given this patient's history of clinical signs.




**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 info@sonopath.com