



PATIENT **PRESENTING CLINICAL SIGNS**

Ella Miller History: Acute onset of lethargy, ataxia and anorexia. NO vomiting or diarrhea. Currently on Trilostane for HAC.
Abnormal PE/Chem/CBC/UA Results: Chem: Mild elevation ALP. Mild hyperglycemia. CBC: Mild non regenerative anemia.

SPECIES

Canine

BREED

Lhasa Apso

SEX

Spayed female

AGE

14 years

WEIGHT

19 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUS

IMAGING PERFORMED BY

Mandy Foley

HOSPITAL NAME

All Creatures Great
and Small AH

REFERRING VET

Dr. Vaughn

INVOICE

46448

DATE

8/3/23

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The right kidney measured 3.84 cm. The left kidney measured 5.0 cm.

Adrenal Glands

The **adrenal glands** appeared slightly enlarged and swollen. No evidence of focal capsular expansion or invasion into the phrenic veins was noted. No overt suspicion of neoplasia was noted. This is considered likely a hyperplastic change associated with stress or adrenal endocrinopathy (PDH). If isosthenuria is persistently present and the patient morphologically suggests Cushing's disease then ACTH testing would be indicated. The left adrenal gland measured 1.46 x 0.6 cm at the caudal pole and 0.38 cm at the cranial pole. The right adrenal gland measured 1.93 x 1.03 cm at the caudal pole and 1.0 cm at the cranial pole.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

Liver

The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia.



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Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

Pancreas

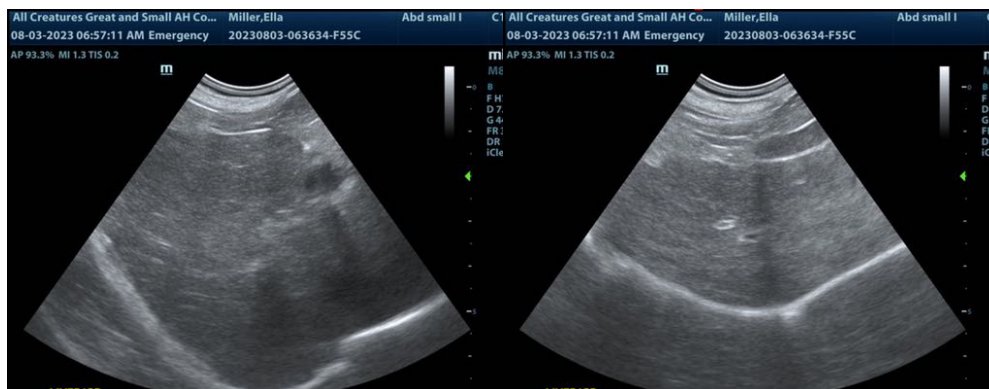
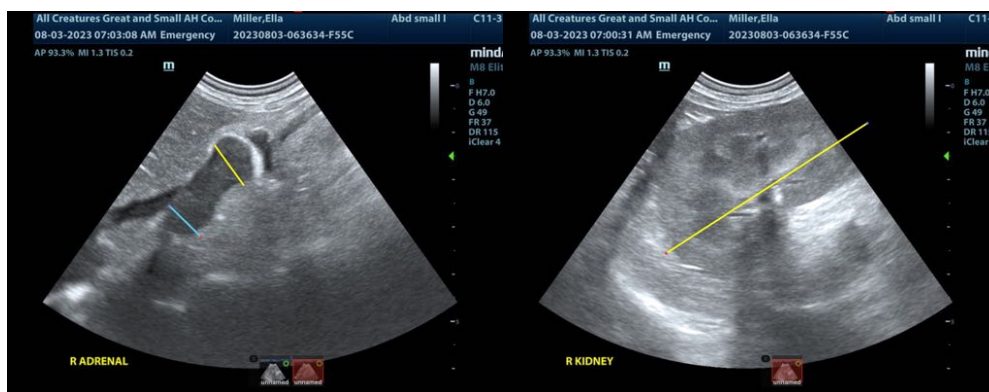
The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

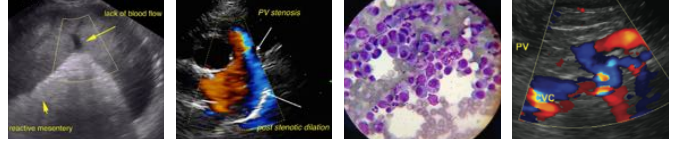
ULTRASONOGRAPHIC FINDINGS

Enlarged adrenal glands.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Bilateral adrenal hypertrophy is typical for PDH/Cushing's. Given the lethargy and anorexia I recommend full CNS and orthopedic examination. If any low-grade CNS signs are present such as dullness then skull CT with contrast is indicated to assess for pituitary tumor. Blood pressure measurements are also indicated to rule out underlying hypertension associated with the adrenal disease.





PATIENT

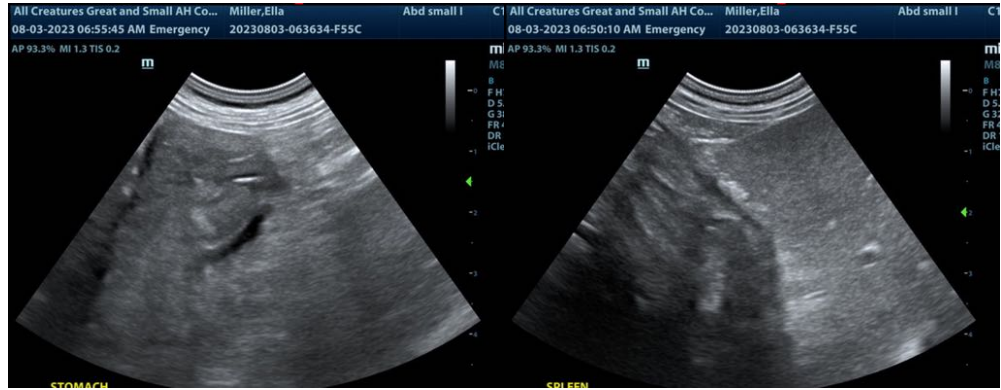
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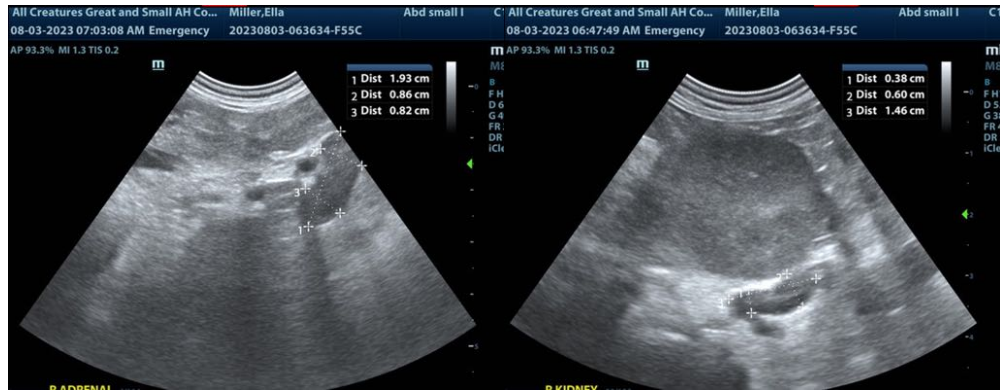
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com