



**PATIENT**

Carson Brown

**PRESENTING CLINICAL SIGNS**

PUPD, weight loss  
Abnormal PE/Chem/CBC/UA Results: Please see attached labs

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

**BREED**

Mastiff X

The visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

**SEX**

Neutered Male

The right kidney has a normal shape and size (6.56 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**AGE**

12 Years

The left kidney has a normal shape and size (6.14 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**WEIGHT**

40 kg

**Adrenal Glands**

The left adrenal gland is large in size measuring 1.08 cm at the cranial pole, 1.25 cm at the caudal pole, and 2.75 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat irregular in appearance in that there is a hyperechoic, mottled, irregular nodule visualized in both the cranial and caudal pole. The nodule in the caudal pole measures 1.25 cm x 1.23 cm. The cranial pole measures 0.94 cm x 0.90 cm. There is no obvious vascular invasion. The shape of the adrenal gland is relatively normal, but slightly irregular. The parenchyma is generally mottled.

**INTERPRETED BY**

Kathleen Sennello  
DVM, MS, Diplomate  
ACVIM (Small Animal  
Internal Medicine)

The right adrenal gland is large in size measuring 1.09 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is somewhat irregular in appearance in that the parenchyma is heterogeneous, but no focal nodules are visualized.

**IMAGING PERFORMED BY**

Kelly Reschny

**Spleen**

**HOSPITAL NAME**

Yates Vet Hospital

The spleen echotexture is homogenous and subjectively normal in size. There are numerous hyperechoic foci within the spleen. Towards the head of the spleen there are two hyperechoic nodules, one measuring 0.85 cm and one measuring 1.05 cm, which distort the splenic capsule.

**REFERRING VET**

Dr. Krizmanich

**Liver**

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

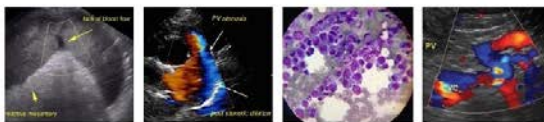
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The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

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***Gastrointestinal***

The stomach appears contains minimal luminal contents. It measures at a normal thickness of XX cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

***Pancreas***

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

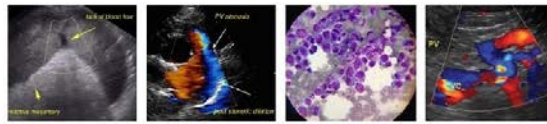
**ULTRASONOGRAPHIC FINDINGS**

- Bilaterally enlarged, heterogeneous adrenal glands with focal nodules observed in the left adrenal gland – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.
- Hyperechoic splenic nodules – Hyperechoic nodules in the spleen favor a benign process, but these are unusual in that they distort the splenic capsule. Therefore, a neoplastic lesion cannot be excluded as a possibility.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The significance of the adrenal irregularities is unclear. This could be a hyperplastic change, or could be consistent with an underlying neoplastic process. I would consider adrenal function testing, possibly the adrenal panel with an ACTH stimulation test to the University of Tennessee, as this will test for hormones other than cortisol, which could be helpful in this case, as it seems somewhat atypical. Additionally, I would consider a blood pressure evaluation.

Options regarding the adrenal glands other than adrenal function testing include the possibility of advanced imaging (contrast CT scan) to further evaluate their appearance and to look for other potential lesions, or you could consider continued monitoring with ultrasound. Hormone excess could explain the PU/PD, but weight loss would be atypical, and a cause for weight loss is not clearly observed. Recommend 3-view thoracic radiographs and initial diagnostics pointing towards these findings, but this patient should be closely monitored, as the adrenal findings could be incidental, and there could be a concurrent issue going on.



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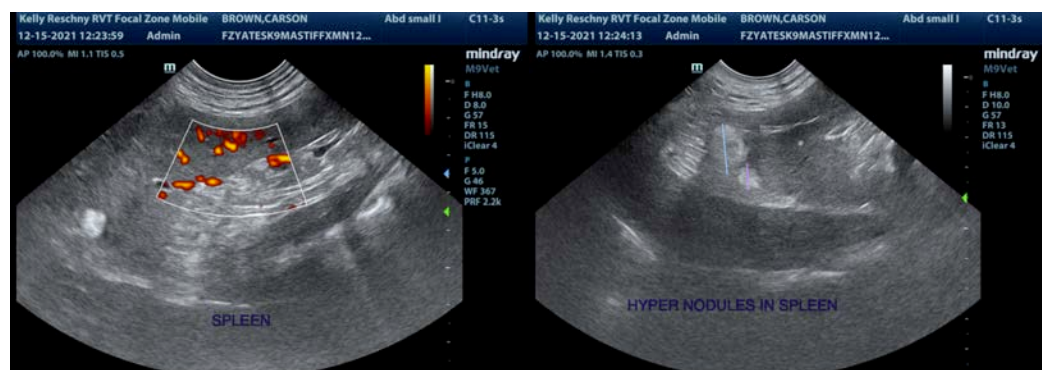
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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