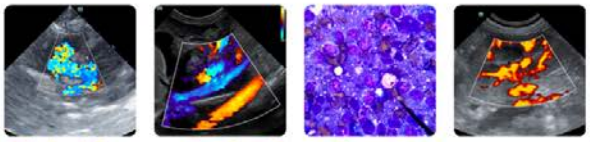


PATIENT

Riley Cox

SPECIES

Canine

BREED

Shepherd x

SEX

Neutered Male

AGE

13 Years 6 Months

WEIGHT

90 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Brittney Beigel, DVM

HOSPITAL NAME

Bayside Animal Medical Center

REFERRING VET

Kathryn Buchanan, VMD

INVOICE

71735

DATE

11/12/25

PRESENTING CLINICAL SIGNS

Hx of 2 episodes of ataxia/inappropriate mentation. Only last 1 few moments. BW shows elevated Ca+ at 13. Previous ultrasound done 10/24/24. Radiographs: no obvious neoplasia or metastasis found on chest x-rays; O opts for US scan to r/o neoplasia vs other; P was fasted for US scan, no sedation needed.

Abnormal PE/Chem/CBC/UA Results: Attached

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.

The prostate is normal in size (0.60 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (7.77 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (8.27 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

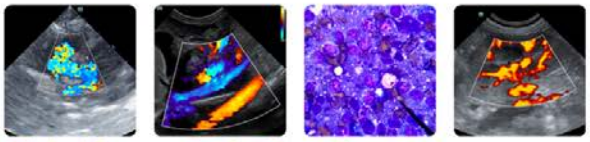
Adrenal Glands

The left adrenal gland is large and irregular in shape, measuring 1.28 cm at the cranial p ole and 0.71 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is abnormal in appearance in that there is a hyperechoic nodule in the cranial pole measuring approximately 1.1 cm x 1.66 cm. No definitive evidence of vascular invasion is visualized, but the nodule appears somewhat irregular near the vasculature.

The right adrenal gland is normal in size measuring 1.03 cm at the cranial pole and 0.77 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 normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is normal in size but irregular in shape. The blood flow through the hilus and splenic parenchyma appears normal. There is a hyperechoic, mottled/mixed echogenicity mass effect visualized towards the tail of the spleen, measuring 2.88 cm x 4.67 cm. The lesion contains small cysts/cavitations.



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Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a small hypoechoic nodule visualized measuring 0.57 cm in diameter. Additionally, there is a very poorly defined, mottled, hyperechoic region/lesion measuring 2.9 cm x 2.8 cm.

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 mild and likely incidental at this time. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm 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. Duodenum wall measures 0.57 cm. Jejunum wall measures 0.39 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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 area of 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.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Hyperechoic nodule at the cranial pole of the left adrenal gland – This currently has the appearance most consistent with a benign lesion (adenoma, focal hyperplasia, etc.). An early carcinoma or pheochromocytoma is possible as it is mildly irregular in shape.

- Hyperechoic, mixed echogenicity, mottled mass effect visualized in the tail of the spleen – A focal mixed echogenicity mass is visualized associate with the spleen. This mass distorts the splenic capsule. Differentials include : benign lesions (lymphoid hyperplasia, hemangioma etc..) or cancerous lesions (hemangiosarcoma, lymphoma, histiocytic sarcoma etc..). The hyperechoic appearance trends somewhat towards a more benign lesion.

- Heterogeneous liver with an ill-defined hypoechoic nodule and a mixed echogenicity lesion – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis,

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extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. The two lesions described have a somewhat benign appearance. Continued monitoring is warranted.

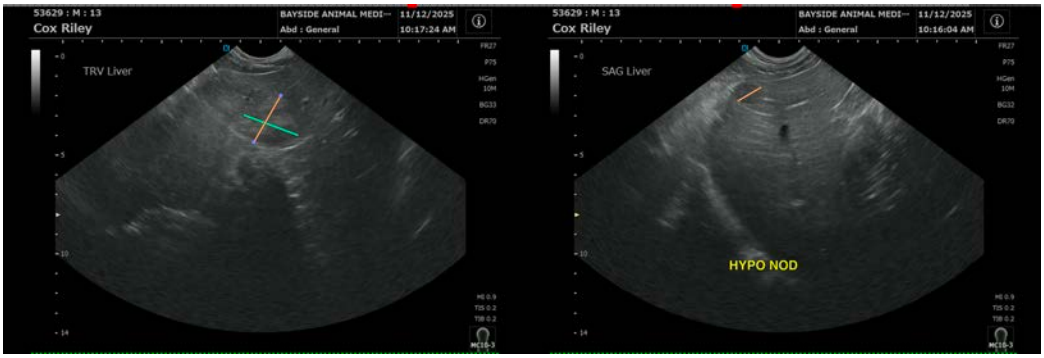
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a small, hyperechoic nodule in the cranial pole of the left adrenal. This could be an incidental finding or an early neoplastic lesion. Additionally, there could be concern for vascular invasion. If clinical signs consistent with Cushing's are present, consider adrenal function testing. Additionally recommend a blood pressure evaluation. If hypertension is present, consider measuring catecholamine levels, looking for possible pheochromocytoma.

There is a mixed echogenicity hyperechoic mass effect visualized associated with the spleen. This could represent a benign or neoplastic lesion. Options moving forward would include a fine needle aspirate or splenectomy with samples for histopathology. If surgery for the splenic or adrenal mass lesion is considered, strongly recommend a contrast CT scan to look for any evidence of vascular invasion from the adrenal mass lesion.

The liver is somewhat heterogeneous with a small, hypoechoic nodule and a poorly defined, hyperechoic/mixed echogenicity lesion. Both of these lesions are subtle/small. The significance is uncertain, and location likely does not allow for easy sampling. If a contrast CT scan is performed to further evaluate the adrenal mass lesion and spleen, then consider evaluation of the liver at the same time.

An obvious cause for the episodes of altered mentation is not clearly visualized. This could potentially be associated with hypertension/increased risk for stroke, etc. but a cardiac or primary neurologic issue should also be considered. This patient is hypercalcemic. This may or may not be associated with any of the mass lesions/nodules described. Consider an ionized calcium, PTH/PTHrP level to further evaluate. Additionally recommend a digital rectal exam to palpate for any anal gland nodules.



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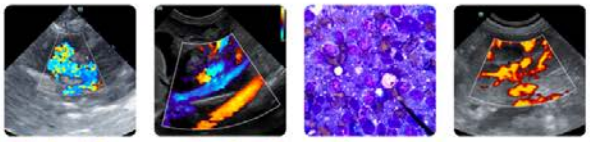

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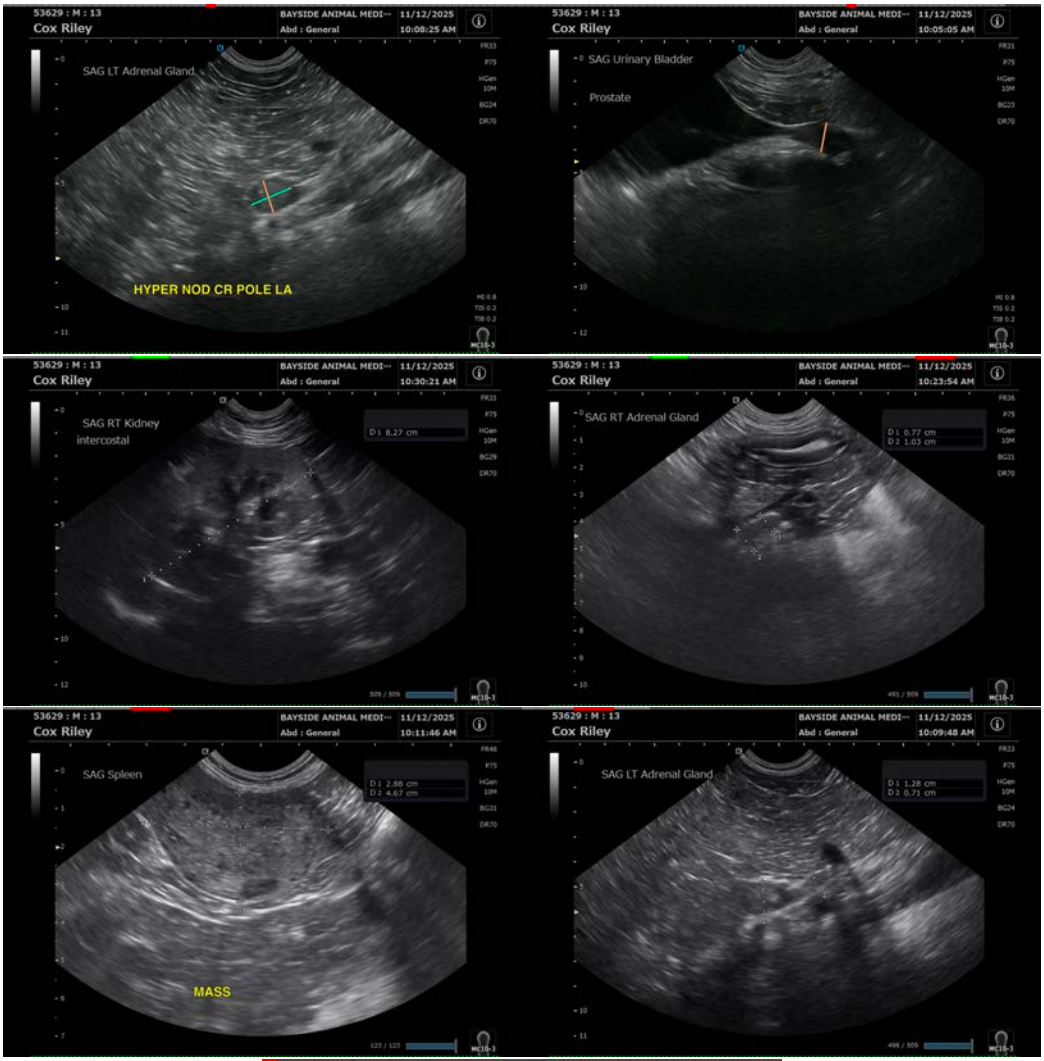

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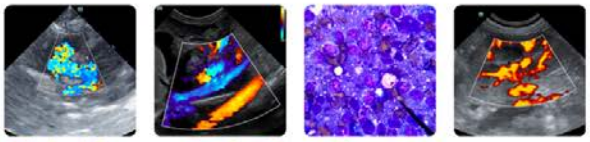

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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