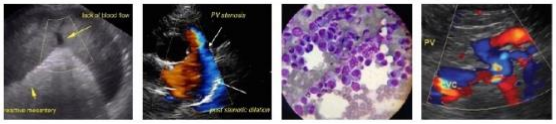

PATIENT

Jenkins Conn

SPECIES

Feline

BREED

Abyssinian

SEX

MN

AGE

11 yrs

WEIGHT

10.68 lbs.

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

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17119

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PRESENTING CLINICAL SIGNS

presented to VEC Internal medicine for workup on non regenerative anemia in January 2022. A serum biochemical profile at that time was within normal limits, cobalamin was within normal limits, and FeLV and FIV were both negative. An anemia PCR panel revealed no infectious causes of anemia. A repeat complete blood count 2 weeks later revealed non-regenerative anemia. Abdomen ultrasound was unremarkable. - Jenkins presented August 25 for weight loss, lethargy and feeling unwell. ASSESSMENT Non regenerative anemia, mild azotemia, severe hypokalemia, cardiac murmur (suspect secondary to hypertension) Severe hypokalemia required hospitalization and aggressive potassium supplementation in clinic. Suspect Feline Hyperaldosteronism ; r/o neoplasia, CKD PLAN Therapeutic Plan: - IV fluids at 2 x maintenance supplemented with 40 mEq KCL/L. No syringe pump to perform a kmax CRI - Cerenia 1 mg/kg IV - Potassium supplementation: 2mEq PO BID Consider amlodipine, spironolactone as next steps if feline aldosteronism is confirmed Owner aware referral may be necessary 4/5 out of 6, paraseternal cardiac murmur. Potassium Gluconate 468mg supplements (1 tablet BID)
Abnormal PE/Chem/CBC/UA Results: RESULTS - Bloodwork and urinalysis was sent to idexx August 25. Results show a moderate non-regenerative anemia, mild azotemia, and severe hypokalemia (2.0 mmol/L) - Patient returned to MAC today (Aug 26) for intravenous fluid therapy, potassium supplementation, and further diagnostics (recheck chemistry and electrolytes, serum aldosterone level). Recheck bloodwork today shows mild elevation in creatinine (180), however hypokalemia was confirmed at 2.5 mmol/L - On physical examination a cardiac murmur was heard, which is new. TT4 was normal, ruling out hyperthyroidism as a cause for a cardiac murmur. - Blood pressure reading completed by technician (although after sedation) was hypertensive (154/129 MAP 137) - AFAST showed 1:1 La:Ao ratio, no peritoneal, pericardial or peritoneal effusion. Renal size symmetrical , ~3.8 cm with no evidence of hydronephrosis. No bladder stones seen - Serum aldosterone levels pending: Even an aldosterone level within the normal range in a hypokalemic patient would be considered too high, and suggestive of aldosterone hypersecretion. - Recommended cardiac and abdomen ultrasound, subsequent blood pressure testing, recheck electrolytes. Discussed estimate with owner. Waiting to hear times for u/s from SPC

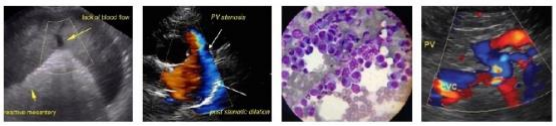
ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Minor nondependent particulate sediment was present without evidence of calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

Normal renal size with asymmetrical margination was present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. The left kidney measured 3.6 cm in length. The right kidney measured 3.8 cm in length. No evidence of pyelectasia was noted.

Adrenal Glands



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Both adrenal glands were normal in size, position and shape, exhibiting subtle nonhomogeneous parenchyma. Pinpoint hyperechoic foci were present in the left adrenal gland. The left adrenal gland measured 0.39 cm in width. The right adrenal gland measured 0.42 cm in width. No overt adrenal tumors noted.

Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease. The spleen was normal in size, measuring 0.85 cm in width.

Liver/ Gallbladder

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

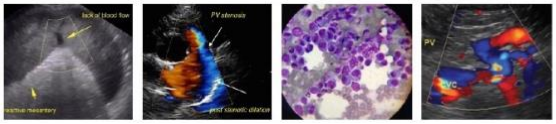
The parenchyma of the left limb, body, and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.

Free Abdomen

No evidence of pathology in the area of the iliac trifurcation, including no evidence of medial iliac or sublumbar lymphadenopathy/masses.

ULTRASONOGRAPHIC FINDINGS

- Normal bilateral adrenal size, exhibiting suspect incidental or age-related left adrenal pinpoint dystrophic mineral
- Bilateral chronic interstitial nephrosis renal pattern
- Minor urinary bladder sediment



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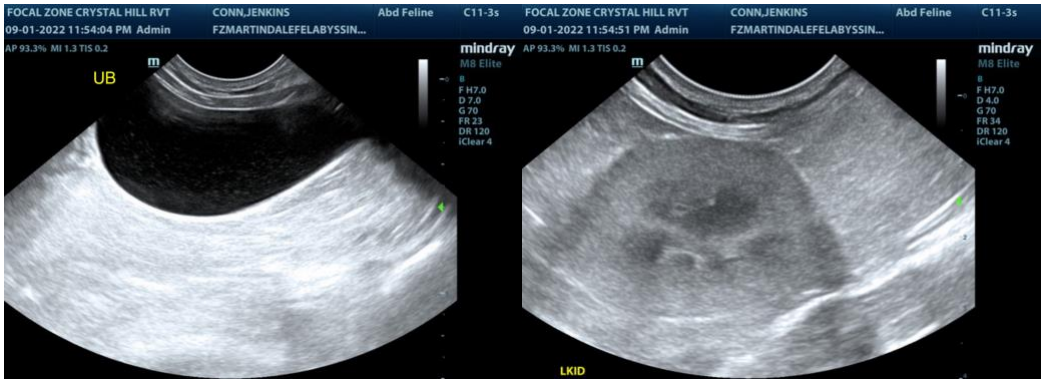
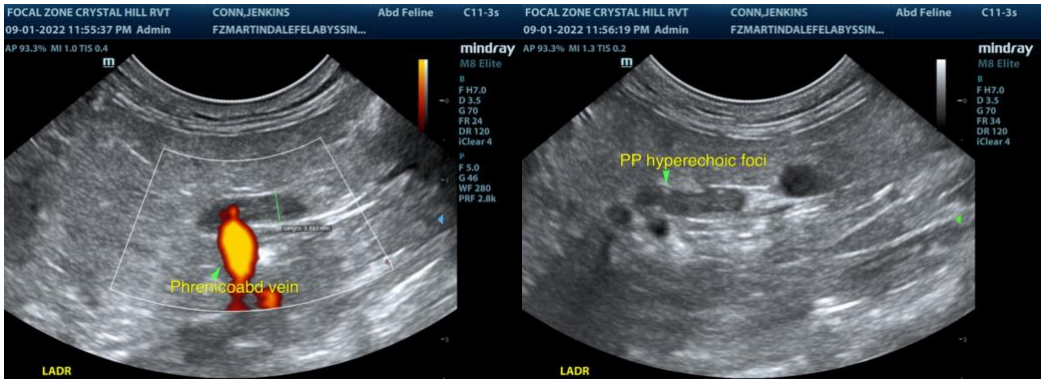
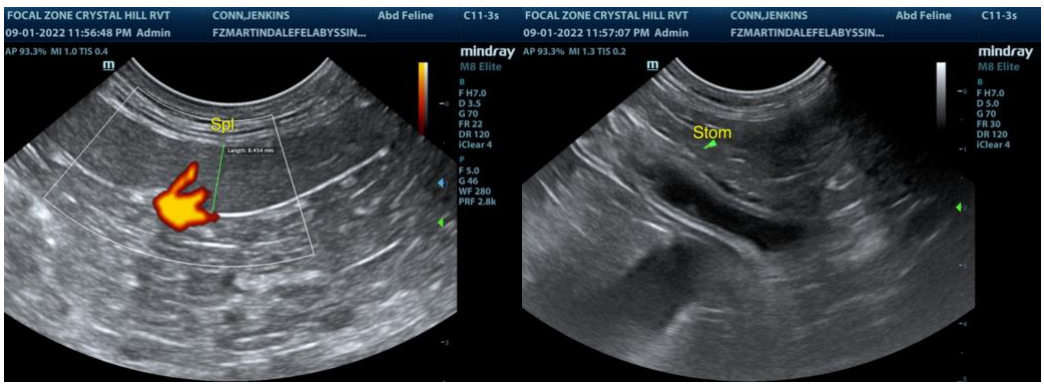
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The normal bilateral adrenal size was not overtly consistent with left or right adrenal neoplastic criteria. Correlation with pending aldosterone levels is recommended. If evidence of abnormal aldosterone levels in the face of hypokalemia, abdominal CT for further assessment of the bilateral adrenal glands may be indicated.

The urinary bladder sediment may indicate minor crystalline debris, cellular debris/protein, lipid or mucus. Urine culture and sensitivity is suggested on sterile urine sample, if evidence of inflammatory sediment is present +/- further renal staging to include UPC level is recommended. Reassessment of potassium levels, as well as degree of azotemia, following IV fluid therapy and potassium supplementation is suggested.







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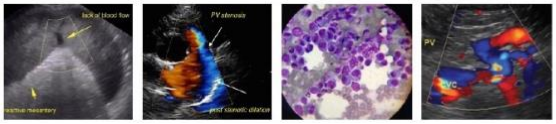

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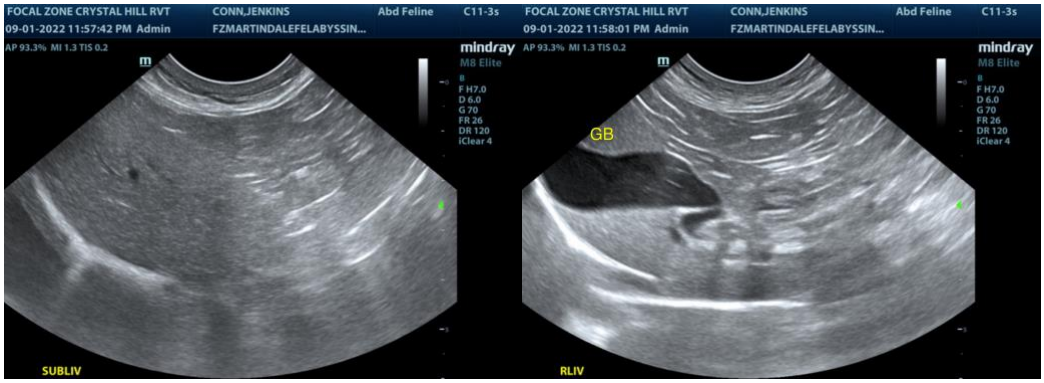

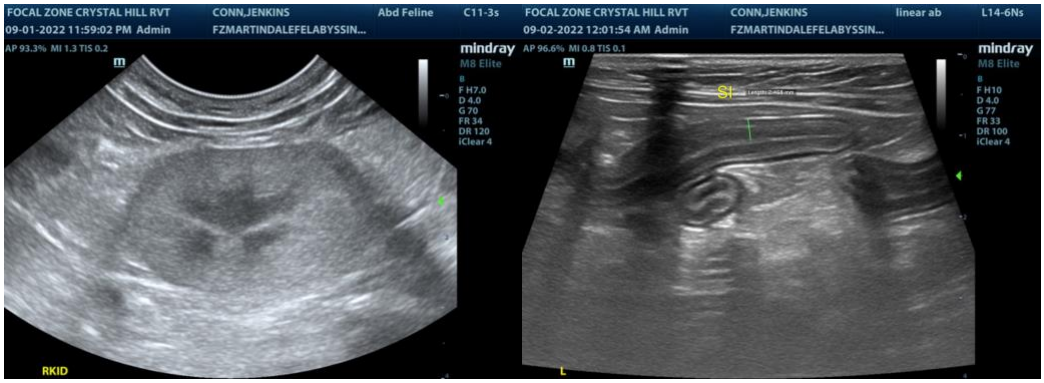

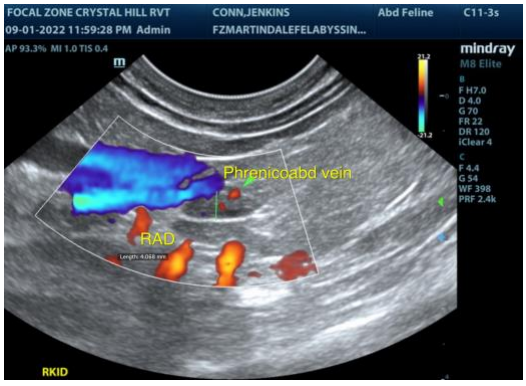

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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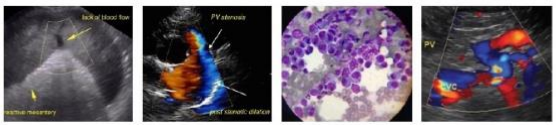

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