



PATIENT

Callie McWaters

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

7

WEIGHT

3.6 kg

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Tanya Borud

HOSPITAL NAME

Red River Animal
Emergency Hospital

REFERRING VET

Dr. Janna Erickson

INVOICE

47171

DATE

5/5/23

PRESENTING CLINICAL SIGNS

Callie is a newly diagnosed diabetic. Has lost weight for the past few months. The past couple of weeks she has been ataxic, vomiting.

Abnormal PE/Chem/CBC/UA Results: On exam, she is about 7% dehydrated. She is dull in mentation. CBC: RBC 7.35 (N), HCT 27.6% (L), MCHC 38, Reticulocytes 54.3; EPOC pO2 185.1, O2Sat 99.5, pCO2 24, HCO3 11.1, mTCO2 10.3, pH 7.293 (N), Be -15.4, Na 142, Ca 0.89, Glu 321, P 2.4, ALT 280, Bilirubin 4.9, Cholesterol 285, Amylase 320, Urinalysis USG >1.050, pH 6.0, protein 30, Glucose 1000, Ketones 150, Blood 250, bilirubine 3, Urobilinogen 12, WBC <1, RBC<1 nsqEPI <1, Cocci present

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 were noted. Ureteral papillae were normal.

The **kidneys** presented minor hyperechoic, wide medullary rim sign. This is an idiopathic finding, possibly related to diabetic state. The left kidney measured 3.68 cm. The right kidney measured 3.9 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 0.33 cm. The left adrenal gland measured 0.30 cm.

Spleen

The **spleen** in this patient was uniform, yet volume contracted. Hydration status should be assessed. The spleen measured 0.58 cm.

Liver

The **liver** was diffusely hyperechoic to falciform fat with generalized enlargement. The gallbladder and common bile duct were unremarkable.

Gastrointestinal

The **gastrointestinal** presentation revealed mild uniform prominence of the gastric mucosa as well as areas of "ropey" small intestinal wall with slight disruption of the normal 1:3 muscularis/mucosal ratio. The intestinal submucosa was slightly irregular, thickened and hyperechoic suggestive of low grade, chronic disease. Some spastic bowel noted, consistent with irritability. No concerning lymphadenopathy was visible. No evidence of obstruction was present. Chronic inflammatory bowel disease is likely with a low possibility of an early neoplastic event such as lymphoma. Full thickness tissue biopsies via open laparotomy, ideally guided by intraoperative ultrasound in order to obtain the most representative mural sample, would be necessary to rule out this possibility.

Pancreas

The **pancreas** was hypoechoic and irregular with undulating contour and enhanced surrounding mesentery, consistent with pancreatitis.



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Free Abdomen

Callie McWaters

Trace amounts of free fluid noted.

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ULTRASONOGRAPHIC FINDINGS

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- Pancreatitis presentation
- Diabetic nephropathy
- Likely emerging hepatic lipidosis or diabetic hepatopathy
- Minor intestinal thickening – consistent with likely inflammatory bowel.
- Volume contracted spleen

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

IV fluid support, stabilization of the diabetic state, and pain management, broad-spectrum antibiotics indicated. No evidence of neoplasia. If liver value elevations occur, then FNA of the liver indicated. Recheck sonogram in 48-72 hour to ensure adequate resolution. No evidence of neoplasia.

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Potential Causes of Diabetic Dysregulation

This is a suggestive checkoff list when faced with an unregulated diabetic patient:

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- UTI
- Dietary indiscretion/intolerance
- Pancreatitis
- Hyperthyroidism/hypothyroidism
- Exogenous steroids (including topical eye meds)
- Cushing's
- Acromegaly
- Owner compliance
- Insulin quality issues
- Antibodies to insulin
- Underlying Neoplasia
- Diffuse liver disease

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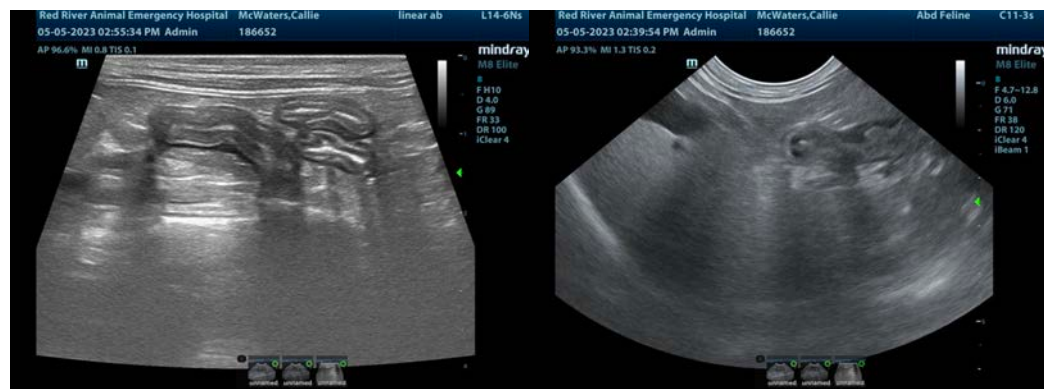
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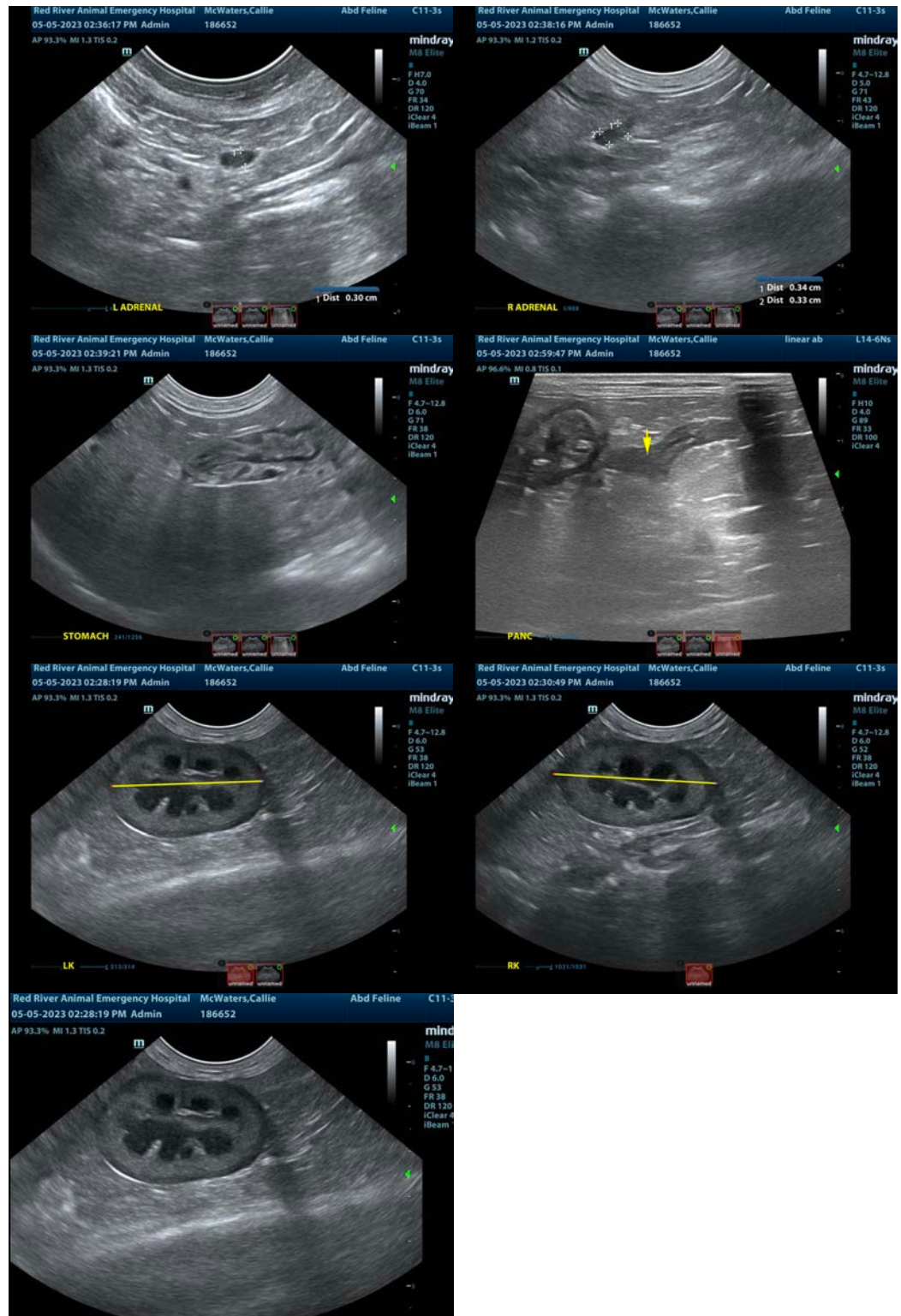
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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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info@SonoPath.com

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