

**DATE PRESENTING CLINICAL SIGNS**

7/30/23

Presenting Complaint: Referral for Continued Care. Diabetic Keto Acidosis (DKA).

PATIENT

History: Date: 07-28-2023 Notes: Initially diagnosed with diabetes 4-5 years ago. Owner feels Kallisto has always been difficult to manage as far as her insulin levels go. Was up to 30 units Novalin BID but in May, she had a seizure and her blood glucose was low, so decreased to 20 units.

Kallisto Buckley

PC v/d, bloody diarrhea RDVM --Dx. as DKA 10 y/o Female INTACT Chessie

SPECIES

Canine

Referral for DKA

Rdvm Bw: Amy >2500, Bun 30, Cl 99, Chol 454, Glu 521, Lip >6000, Na 140, Neu 13.21, Eos 0.01, Rdvm Urine -- Ketones Large

BREEDChesapeake Bay
Retriever

Hx of glaucoma

SEX

Female

Current Medications: Attached.

Lab Results: Attached.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

AGE

2013

Imaging Performed By: Rachel Brillhart, RDMS.

WEIGHT

55.8 Pounds

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**INTERPRETED BY**Eric Lindquist, DMV
DABVP, Cert. IVUSS**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.**HOSPITAL NAME**Animal Emergency
HospitalThe **kidneys** were normal in size and contour; however, a minor hyperechoic ring was noted at the corticomedullary junction. This is consistent with diabetic nephropathy. This is likely from glucosuria. However, assessment for proteinuria is also warranted. This is an idiopathic finding, but an expected finding in diabetic patients. The left kidney measured 6.4 cm. The right kidney measured 8.09 cm.**REFERRING VET**

Dr. Martinoli

Adrenal GlandsBoth **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 left adrenal gland measured 2.81 cm x 0.76 cm at the caudal pole and 0.67 cm at the cranial pole. The right adrenal gland measured 2.69 cm x 0.76 cm at the caudal pole and 0.66 cm at the cranial pole.**INVOICE**

44500

SpleenThe **spleen** was normal size and relatively normal contour with multifocal hyperechoic areas of mineralization. This is a benign change; however, can be related to Cushing's disease or other endocrinopathies.

Liver

The **liver** was diffusely hyperechoic with attenuating sound beam. The gallbladder and common bile duct were unremarkable. Slight increased portal markings noted.

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 right limb of the **pancreas** was hypoechoic and mildly irregular with enhanced surrounding mesentery.

Other

The left ovary was cystic and measured 2.7 cm x 1.7 cm. The right ovary was uniform, measuring 1.29 cm x 0.88 cm. The uterus was upper limits of normal at 1.1 cm, empty lumen.

A reactive mesenteric lymph node was noted, measuring 2.8 cm x 0.77 cm.

ULTRASONOGRAPHIC FINDINGS

- Diabetic nephropathy
- Diabetic hepatopathy
- Splenic mineralization
- Cystic left ovary and prominent uterus
- Some level of pancreatitis likely playing a role
- Reactive mesenteric lymph node

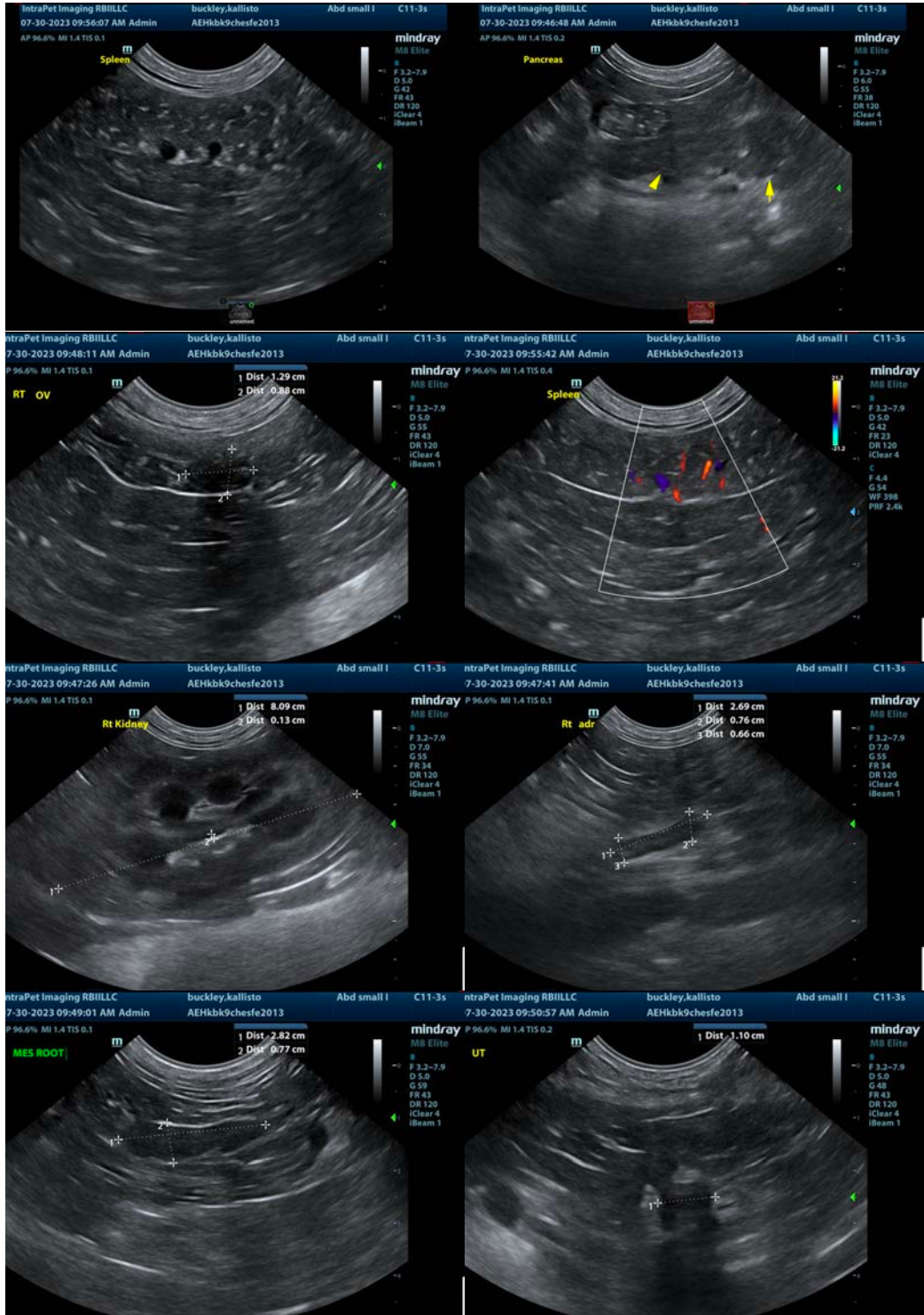
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

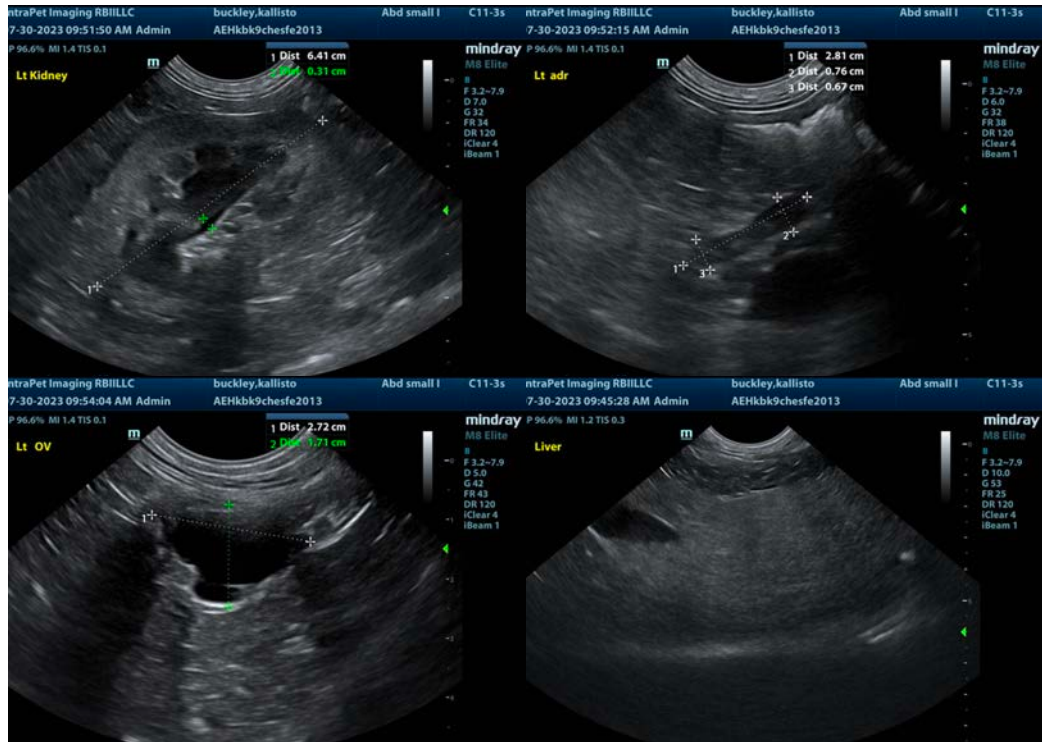
The pancreatic and reproductive presentation are both likely playing a role in diabetic dysregulation. Stabilization of the diabetic state with treatment for pancreatitis and eventual ovariectomy recommended to help regulate.

Potential Causes of Diabetic Dysregulation

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

- 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





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