

**DATE PRESENTING CLINICAL SIGNS**

2/3/23

**PATIENT**

Harley Keaton

History: In estrus 5 months ago. Started getting sick in August. BW done NSF, ATO September sick again, panting, increased BG at that time. Diagnosed with diabetes. Regulation varies with her estrus cycle. Started on Vetsulin 30 units, gave for about 2 weeks. Generally hyper but lethargic acutely. Diarrhea for the last 2 days Normal appetite 6-7 cups, decreased appetite now. Then nothing in the evening. Vomited once before coming into the hospital. Getting insulin on and off. Owner checks BG at home. This pm was BG 454.

**SPECIES**

Canine

Current Medications: Provable, Vetsulin, Protonix, Ondansetron.

Lab Results: See attached.

Radiographs: Abdomen- NSF. Fast scan- no FF noted.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

**BREED**

Great Dane

**SEX**

Intact Female

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****AGE**

10/14/15

**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.

**WEIGHT**

145 Pounds

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The right kidney measured 7.77 cm. The left kidney measured 8.97 cm.

**INTERPRETED BY**Eric Lindquist, DMV  
DABVP, Cert. IVUSS**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 left adrenal gland measured 3.32 cm x 0.92 cm at the caudal pole and 0.94 cm at the cranial pole.

**HOSPITAL NAME**Animal Emergency  
Hospital**Spleen**

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

**REFERRING VET**

Dr. Nacke-Horney

**INVOICE**

20964

**Liver**

The **liver** was uniformly enlarged. Attenuating sound beam was noted in the liver with diffuse hyperechoic coarse architecture and remodeling, partially owing to diabetic state. The gallbladder and common bile duct were unremarkable.

**Gastrointestinal**

The **stomach** was overdistended with fluid and chyme. The upper gastrointestinal tract was unremarkable, curvilinear pattern were maintained. The colon was fluid filled with mild wall thickening.

### ***Pancreas***

The **pancreas** revealed extensive mixed hypoechoic parenchymal changes and enlargement, measuring 4.25 cm in the right limb.

### ***Other***

The **right ovary** was cystic and mildly irregular, measuring 3.6 cm x 1.93 cm.

The **left ovary** presented multiple cysts and irregular parenchymal changes. The left ovary measured 3.1 cm x 2.9 cm.

## **ULTRASONOGRAPHIC FINDINGS**

- Multiple cysts in the left ovary with irregular parenchymal changes
- Right ovary was cystic and mildly irregular
- Extensive pancreatitis/gastroenteritis
- Hepatomegaly

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Enterotoxins or similar are suspected in this patient. The reproductive status is likely playing a role in the diabetic dysregulation from a long-term standpoint; however, acute pancreatitis/gastroenteritis are playing a role as well. Prognosis is guarded. No evidence of neoplasia. Stabilization of the GI and pancreatic presentation followed by eventual ovariohysterectomy may allow for better long-term management of the diabetic state.

### **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

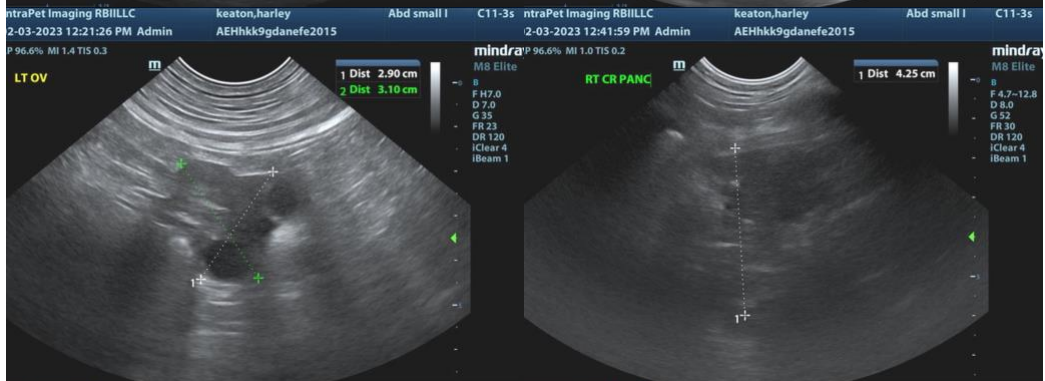
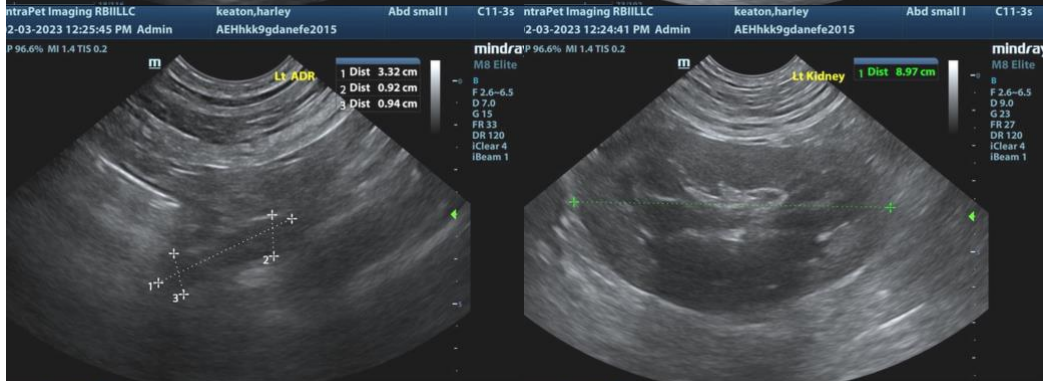
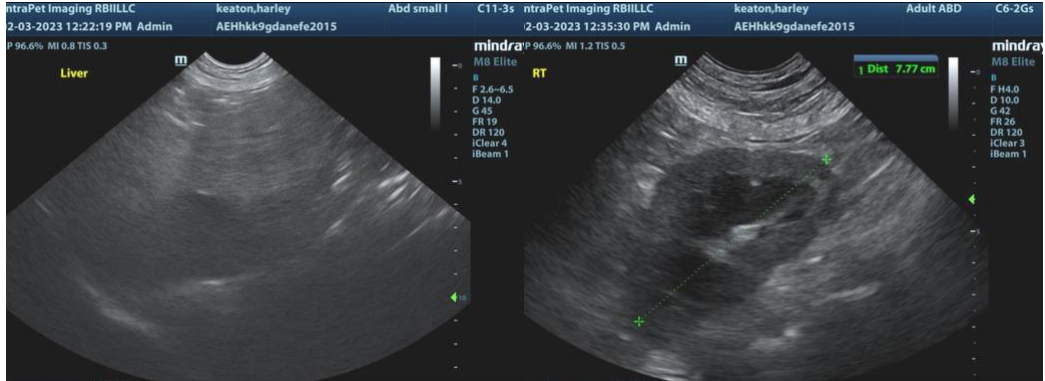
Acromegaly

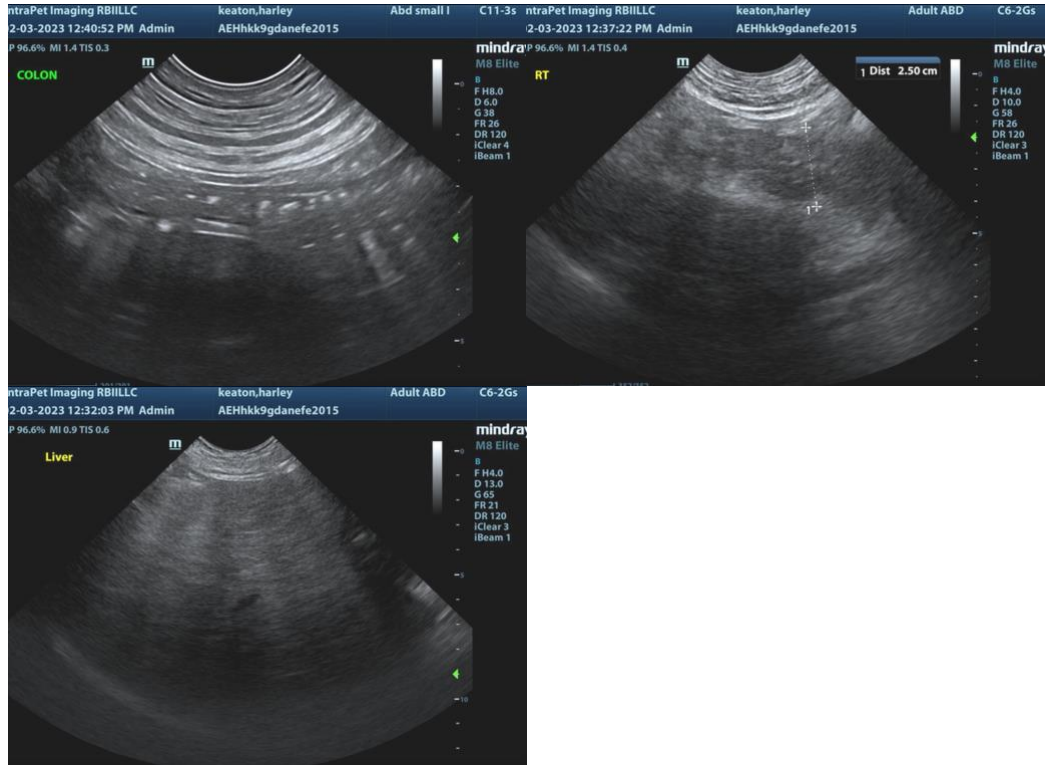
Owner compliance

Insulin quality issues

Antibodies to insulin

Underlying Neoplasia





**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.

**Eric Lindquist**, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
info@SonoPath.com