



**PATIENT**

Yeager Barkley

**SPECIES**

Canine

**BREED**

Dachshund

**SEX**

Neutered Male

**AGE**

8 Years

**WEIGHT**

7.44 kg

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

CVN

**HOSPITAL NAME**

Animal Emergency Hospital Volusia

**REFERRING VET**

Dr. Van Nieuwal

**INVOICE**

37578

**DATE**

5/11/22

**PRESENTING CLINICAL SIGNS**

Diagnosed with diabetes at regular vet recently. Started on 7 units Novolin-N BID, was doing well with this then stopped eating this AM. Went to regular vet and had BG and ketones checked, BG was 550+ and ketones noted moderate. Here at ER the BG on presentation was >700, ketones large, diagnosed with UTI and pancreatitis as well.

Abnormal PE/Chem/CBC/UA Results: BUN 48, ionized calcium 0.98, chloride 105, sodium 130, pH 7.145, bicarbonate 9.7, WBC 23.21, NEU 22.09, LYM 0.25, PLT 705, glucose >700, cholesterol >450, phos 7.5, calcium 8.1, TP 10.4, PCV 58%, albumin 4.6, ALP 319, GGT 15 large ketones UTI and CPL positive

**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** 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 5.0 cm. The right kidney measured 5.0 cm.

**Adrenal Glands**

The **left adrenal gland** was uniformly enlarged and visualized obliquely, measuring 0.8 cm. The right adrenal gland presented normal size and contour, isoechoic to surrounding fat. The right adrenal gland measured 0.8 cm at the cranial pole and 0.6 cm at the caudal pole.

**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.

**Liver**

The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia. This presentation is expected for a diabetic patient.

**Gastrointestinal**

The **stomach** was empty, mild hypertrophy noted. Areas of mucosal striations and fogging noted in the small intestine with reactive mesentery.



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***Pancreas***

Yeager Barkley

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxyphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

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**ULTRASONOGRAPHIC FINDINGS**

- Diabetic nephropathy
- Hepatopathy with remodeling
- Pancreatic remodeling
- Gastroenteritis presentation
- Slight swollen left adrenal gland

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No overt structural evidence of disease directly related to the clinical signs in this patient, unless upper GI discomfort is playing a role. GI protectant protocol recommended. Treatment for primary diabetic state and reassessment of the clinical status recommended.

**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

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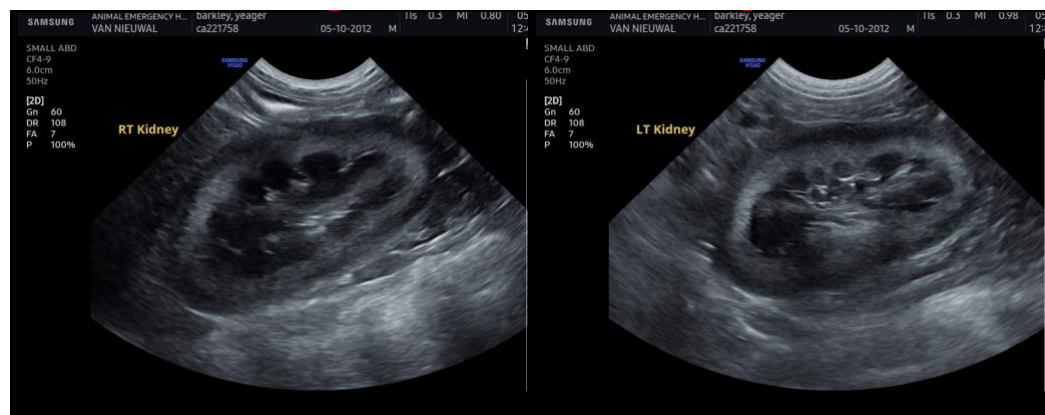
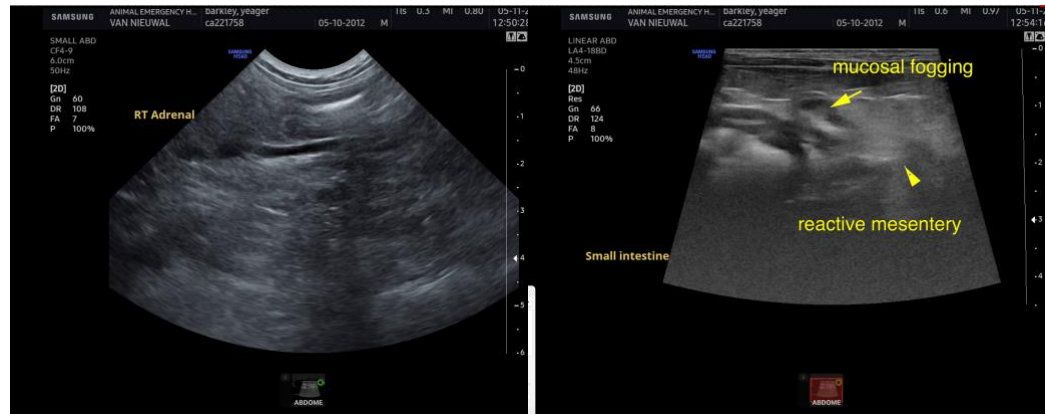
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

[info@SonoPath.com](mailto:info@SonoPath.com)