SonoPath
Clinical Sonography & Telecytology
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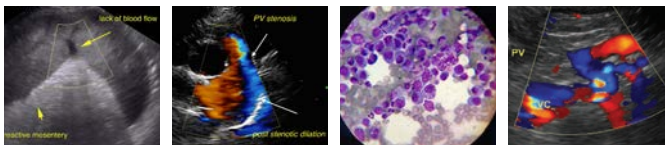

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1-800-838-4268 info@sonopath.com

PATIENT
Ozzie Johnson

SPECIES
Canine

BREED
Australian Shep X

SEX
Neutered Male

AGE
10 Years

WEIGHT
63 Pounds

INTERPRETED BY
Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Jessica Miller

HOSPITAL NAME
Newton Vet Hospital

REFERRING VET
Dr. Pierson

INVOICE
24915

DATE
8/25/21

PRESENTING CLINICAL SIGNS

DKA Current meds:Insulin CKI, famotidine, cerenia, entyce, denamarin
Abnormal PE/Chem/CBC/UA Results: BUN 40.3, Calcium 8.8, glucose 7608, Cholest 396, ALT 241, ALP too high to read, GGT 29, c 100 UA: glucose +++, occ struvite crystals SG: 1.041

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** and visible pelvic urethra were unremarkable for the level of repletion presented. The urine, however, did present some mildly echogenic debris consistent with mucous, exfoliated cells from renal or bladder origin, and/or blood clots as these echogenic changes can all present similarly. This is often related to urinary tract infection but may represent simple evidence of exfoliated debris or sterile inflammation. Cystocentesis, urinalysis, +/- culture would be recommended to rule out and define any UTI. The pelvic urethra was imaged 2.0 cm beyond the cystourethral junction.

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 8.25 cm. The right kidney measured 8.21 cm.

Adrenal Glands

The **left adrenal gland** was slightly enlarged, mildly irregular, and measured 3.52 cm x 1.06 cm at the cranial pole and 0.66 cm at the caudal pole. The **right adrenal gland** presented normal size and contour, measuring 0.6 cm in width.

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 diffusely hyperechoic to falciform fat with attenuating sound beam. The gallbladder and common bile duct were unremarkable. Heterogeneous, non-disruptive nodular changes were noted. Generalized hepatic enlargement also noted with occasional cystic change.

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 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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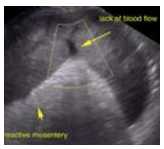
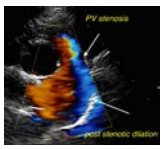
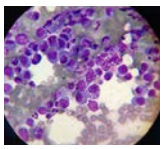
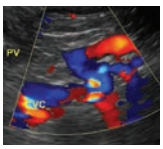

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ULTRASONOGRAPHIC FINDINGS

- Diabetic hepatopathy with nodular changes – lipidosis pattern
- Urinary bladder debris
- Diabetic nephropathy
- Slightly enlarged, mildly irregular left adrenal gland
- Pancreatic remodeling

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Bile acid profile and ultrasound guided FNA of the liver warranted. Urinalysis warranted if not already performed to ensure underlying UTI is not an issue in this patient.

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

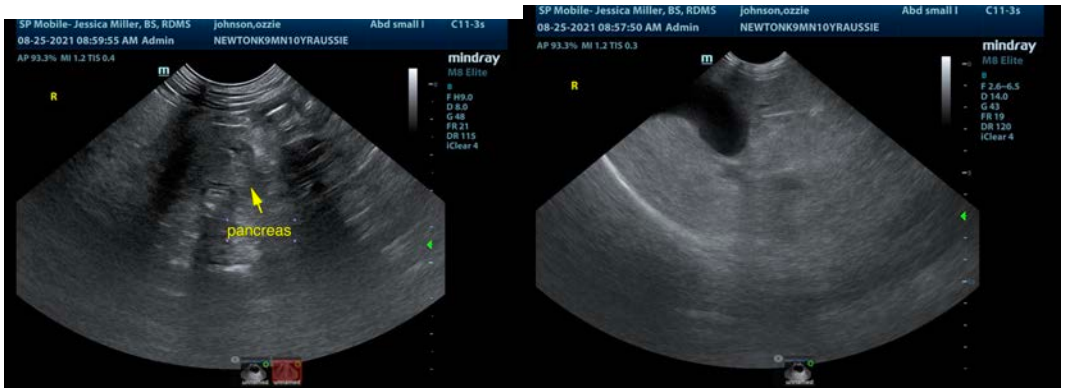
Owner compliance

Insulin quality issues

Antibodies to insulin

Underlying Neoplasia

Diffuse liver disease



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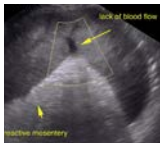
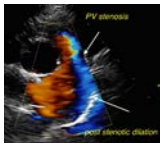
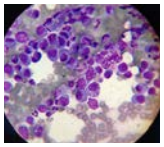
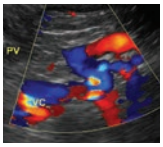

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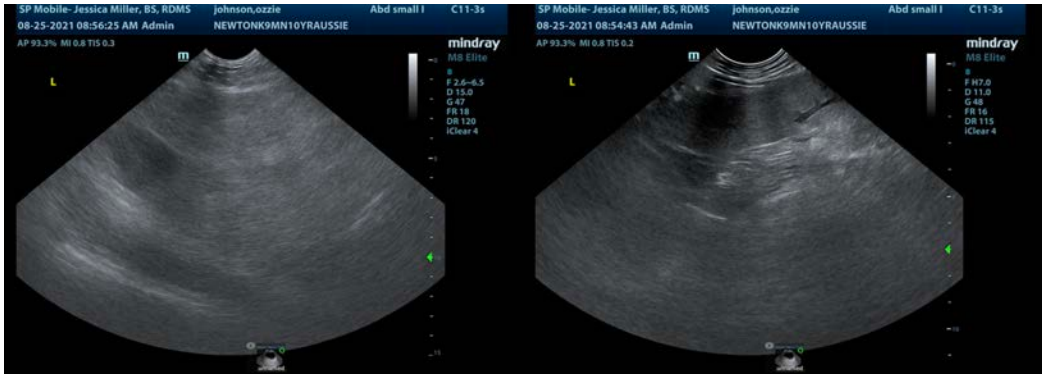

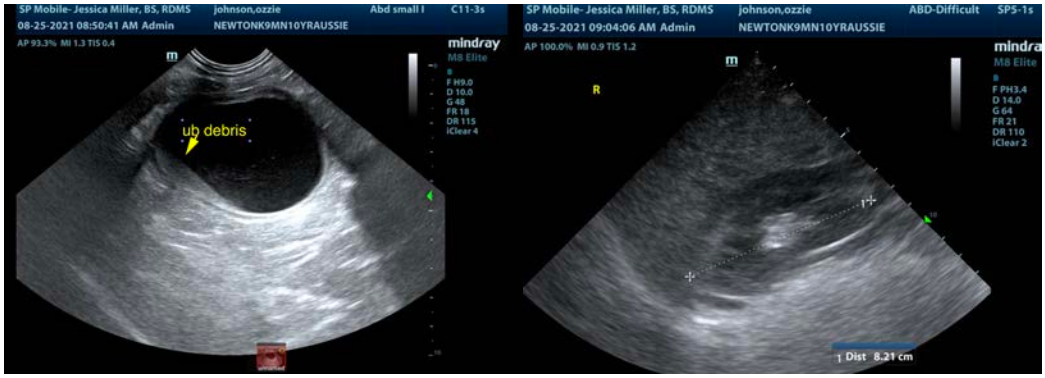

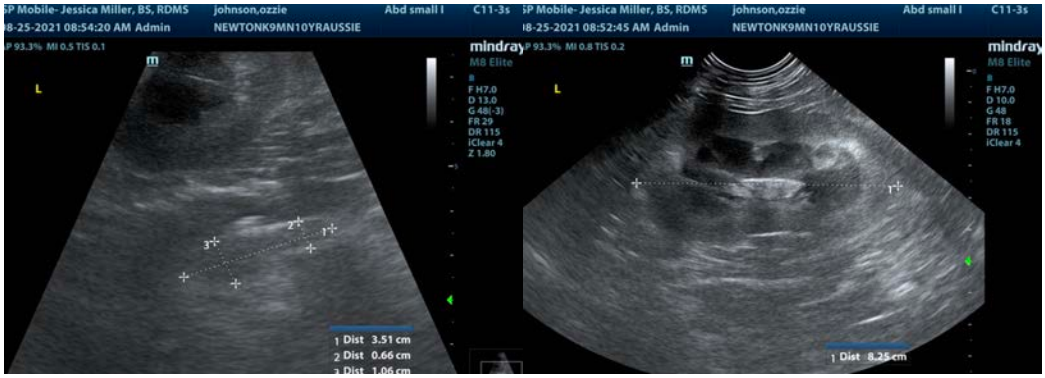

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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