**DATE PRESENTING CLINICAL SIGNS**

1/21/22

History: Date: 01-19-2022 Notes: Lexie is an 11 y/o FS Jack Russell Terrier who was referred for suspected DKA - has not eaten since

PATIENT

Lexie Mihalic

Sunday and have been vomiting - Unable to keep food down, O gave nutracal and she vomited it back up - vomiting 4-5 times yesterday,

yellow bile, no food - increased drinking when on prednisone, decreased when prednisone stopped - had a cough for 6 weeks which was

SPECIES

Canine

treated with two different abx - eventually had CXR and diagnosed with bronchitis, tracheitis, started on prednisone - historical quiet heart

BREED

Jack Russell Terrier

murmur, had ECG done and sent out, no medications started - rescued 4 years ago, and has been healthy until now - lost 2 lbs since September - appetite was normal until prednisone stopped, eats homemade diet - Hx- allergies - UTD on VX Medications: - Apoquel, has not had in the last week - monthly preventatives.

Assessment: DKA. Plan: Recommended 3-5 days hospitalization, IVF, insulin therapy, baseline LE, UA, urine culture, recheck BW, eventual AUS. Discussed diabetes and DKA, O elects to move forward with treatment and elects to have urine culture sent.

SEX

Spayed Female

Current Medications: Gabapentin, Buprenex, Humulin-R, Potassium Chloride, Cerenia.

Lab Results: ALP 4169, Glucose 524

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

AGE

1/19/11

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**WEIGHT**

21.3 Pounds

Urinary System**INTERPRETED BY**Eric Lindquist, DMV
DABVP, Cert. IVUSS

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.

IMAGING PERFORMED BY

Rachel Brilhart RDMS

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 5.35 cm. The right kidney measured 5.29 cm.

HOSPITAL NAMEAnimal Emergency
Hospital**Adrenal Glands**

The **adrenal glands** appeared slightly enlarged and swollen. No evidence of focal capsular expansion or invasion into the phrenic veins were noted. No overt suspicion of neoplasia was noted. This is considered likely a hyperplastic change associated with stress or adrenal endocrinopathy (PDH). If isosthenuria is persistently present and the patient morphologically suggests Cushing's disease then ACTH testing would be indicated. A hyperechoic nodule was noted at the caudal pole of the adrenal gland measuring 0.74 cm. The left adrenal gland measured 2.08 cm x 0.92 cm at the caudal pole and 0.88 cm at the cranial pole. The right adrenal gland measured 2.36 cm x 0.68 cm at the caudal pole and 0.67 cm at the cranial pole.

REFERRING VET

Dr. Thompson

INVOICE

35031

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** in this patient was mildly enlarged and uniform with hyperechoic parenchymal changes. There were subtle, hypoechoic heterogenous nodular changes. The gallbladder and common bile duct were unremarkable other than a minor amount of gallbladder sludge/debris.

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 **pancreas** was enlarged and irregular with undulating contour. Hypoechoic parenchyma noted. The right base measured 5.5 cm x 2.0 cm. Extensive irregular contour and enlargement noted on the left.

ULTRASONOGRAPHIC FINDINGS

- Prominent, irregular pancreas – suspect chronic active pancreatitis
- Diabetic hepatopathy
- Diabetic nephropathy
- Enlarged left adrenal, upper of limits on the right
- Left adrenal nodule – likely adenoma

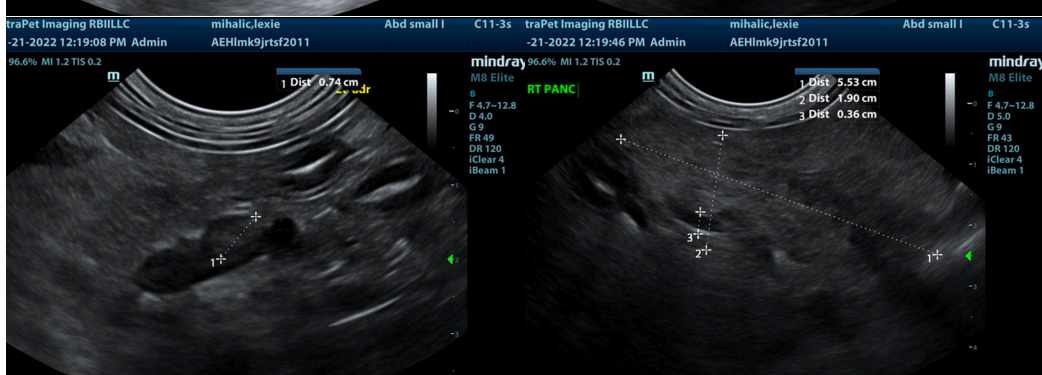
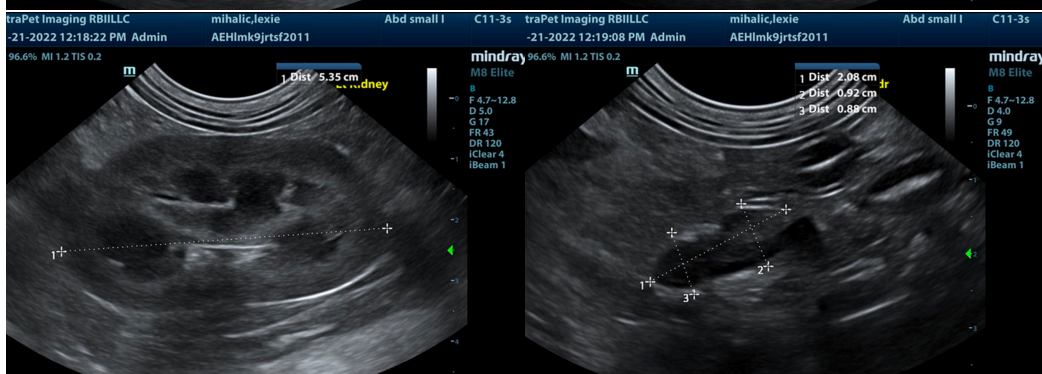
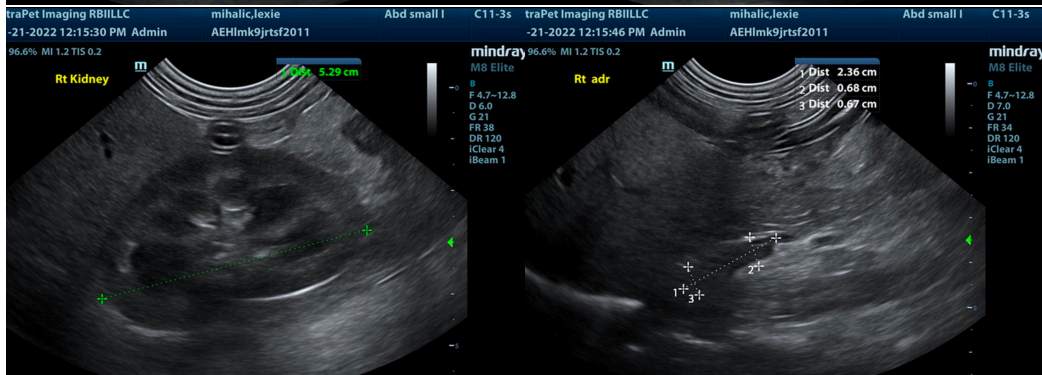
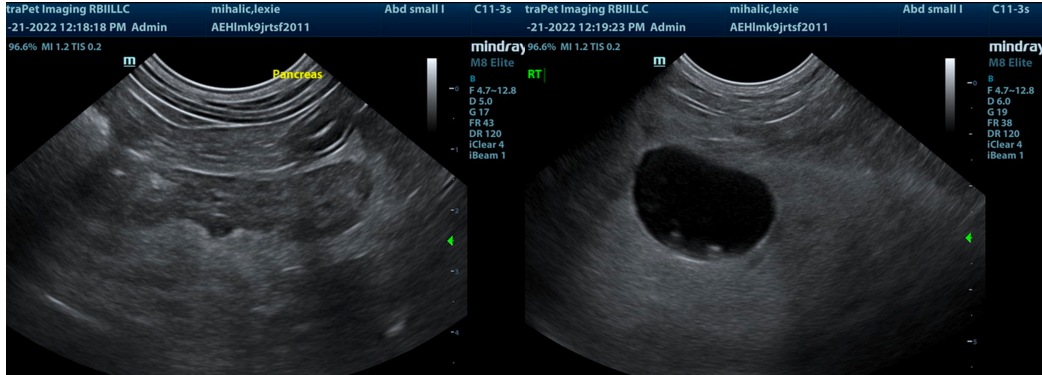
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

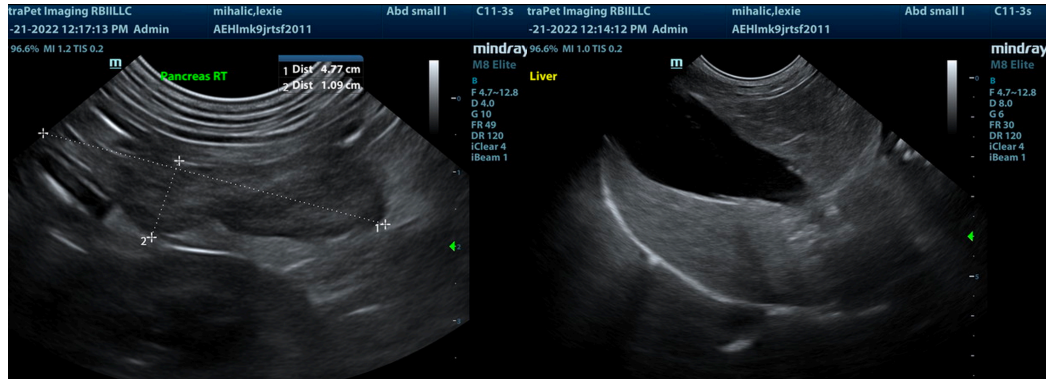
Pancreatitis is likely the immediate issue in this patient. However, emerging Cushing's may be an issue as well. Treatment for pancreatitis, IV fluid support, broad-spectrum antibiotics and insulin support all indicated. Recheck sonogram in 72 hours to ensure adequate resolution.

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. 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