

**DATE PRESENTING CLINICAL SIGNS**

10/1/21

**PATIENT**

Mack Lilly

History: Date: 09-29-2021 Notes: Referral from Swan Creek for newly diagnosed diabetic with pancreatitis. Unknown if DKA. Was seen yesterday for vomiting, 10# weight loss. Radiographs were taken and WNL. BAR at the appointment but slightly lethargic at home. Was given Cerenia, famotidine, and SQ fluids. BW came back and BG 681, increased pancreatic enzymes. Na, Cl low. K low normal. Referred for IVF, treatment for pancreatitis, +/- DKA if we find ketones on BW.

**SPECIES**

Canine

Current Medications: Amp/Sulb (Unasyn) 1.5gm Injection (Per mL), Potassium Chloride 2mEq/mL Injection (Per mL), Enrofloxacin (Baytril) 100mg/mL Injection (Per mL), Insulin - Humulin R U-100 Injection, Maropitant Citrate (Cerenia) 10mg/mL Solution Injection (Per mL), Dextrose 50% Solution Injection (Per mL)

**BREED**

Miniature Australian Shepherd

Lab Results: Attached

Date of Previous IntraPet Ultrasound: No previous

Sedation: not needed

Stat Report: not requested

**SEX**

Neutered Male

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System****AGE**

2014

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**

36.5 Pounds

The **kidneys** were normal in size and contour; however, a minor hyperechoic ring was noted at the corticomedullary junction. This is consistent with mild 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. Slight pyelectasia noted in the left kidney. The left kidney measured 6.82 cm. The right kidney revealed similar changes to the left. The right kidney measured 6.7 cm.

**INTERPRETED BY**Eric Lindquist, DMV  
DABVP, Cert. IVUSS**Adrenal Glands**

The **left adrenal gland** revealed a hyperechoic nodule (0.87 cm x 0.7 cm) at the cranial pole. The left adrenal gland measured 2.57 cm x 1.0 cm at the cranial pole and 0.8 cm at the caudal pole.

**HOSPITAL NAME**

Anmal Emergency H

The **right adrenal gland** was swollen and measured 2.07 cm x 1.12 cm at the cranial pole and 0.87 cm at the caudal pole.

**Spleen****REFERRING VET**

Dr. Alayon

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.

**INVOICE**

13438

**Liver**

Exam of the cranial abdomen demonstrated excessive **liver** size, swollen contour, with conserved uniform architecture. Parenchymal echogenicity was diffusely isoechoic to the spleen and falciform fat. The gallbladder was mildly over distended with suspended and dependent debris, yet not to the level of emerging mucocele, yet sludge appears to be mildly excessive. No adjunctive inflammation was noted.

This type of liver presentation typically is associated with slow and gradual SAP elevations with low-grade ALT rise. USG-FNA sampling is encouraged if more aggressive LE profiles are present such as ALT > 200 or rapid rise in SAP. These presentations are usually reactive hepatopathies owing to other disease processes either endocrine (Diabetes, Hypothyroidism, Cushing's disease), "antigen surveillance" from the gut/pancreas, or idiopathic breed predisposed progressions. This is a moderate change.

### ***Gastrointestinal***

Upper **gastrointestinal tract** was enveloped by the pancreatic pathology with thickened submucosal layer noted. No evidence of foreign bodies, however, significant gastric stasis was present.

### ***Pancreas***

The **pancreas** was enlarged, hypoechoic and irregular with undulating contour. The pancreas measured 1.81 cm in width in the right limb, enveloping the upper gastrointestinal tract.

## **ULTRASONOGRAPHIC FINDINGS**

- Extensive pancreatitis
- Gastroduodenitis
- Bilateral adrenal enlargement with left adrenal nodule
- Gallbladder sludge
- Diabetic nephropathy

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

Aggressive treatment for pancreatitis and plasma expanders. Plasma transfusion could also be considered. Broad spectrum antibiotics and pain management warranted. Recheck sonogram in 48-72 hours. No evidence of neoplasia. Underlying PDH/Cushing's may be an issue in this patient as well.

For an additional charge, internal medicine consult can be utilized through Sonopath.com. You can select the internal medicine drop down at <http://spa.sonopath.com/>.

One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. <https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services>

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

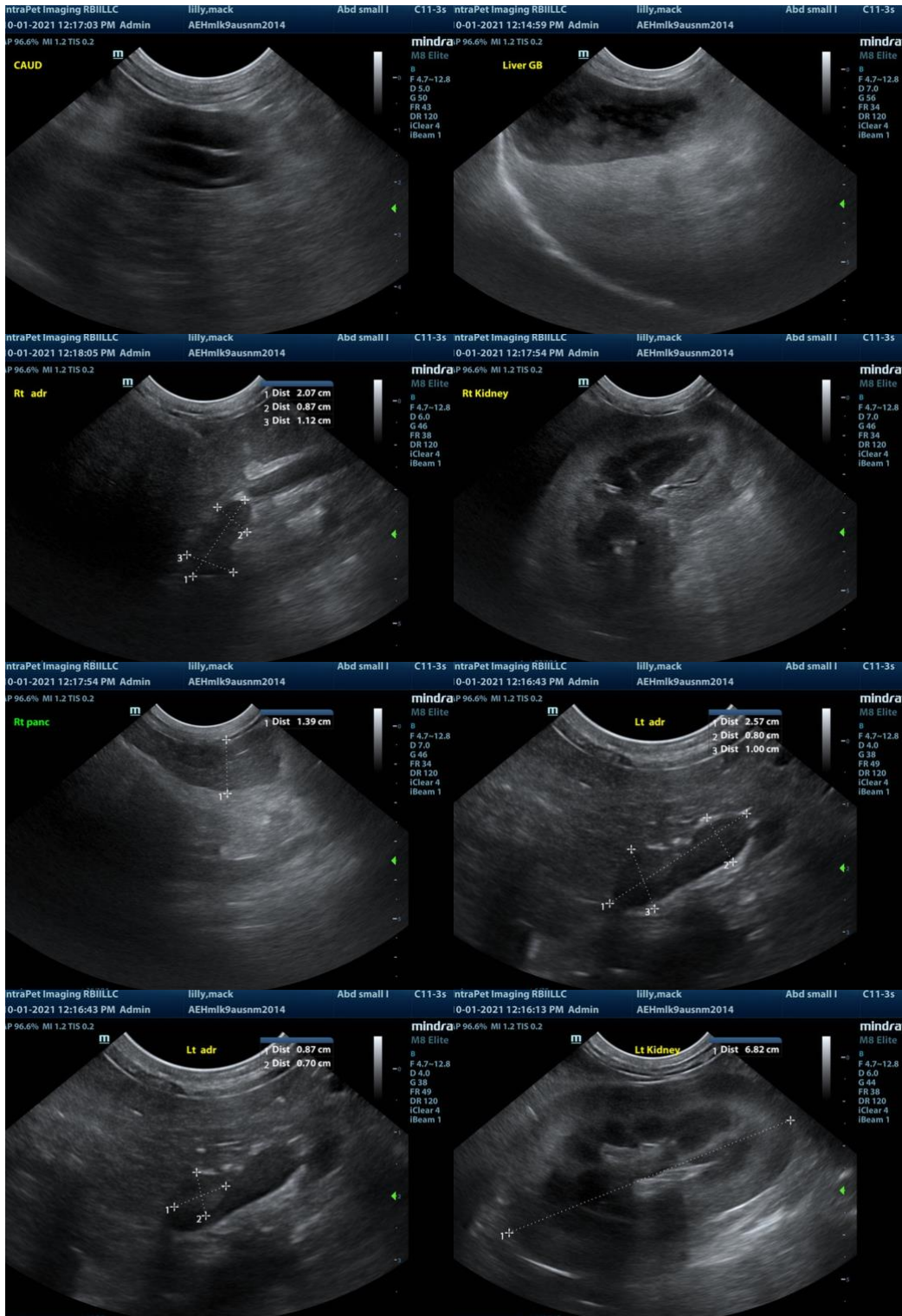
Owner compliance

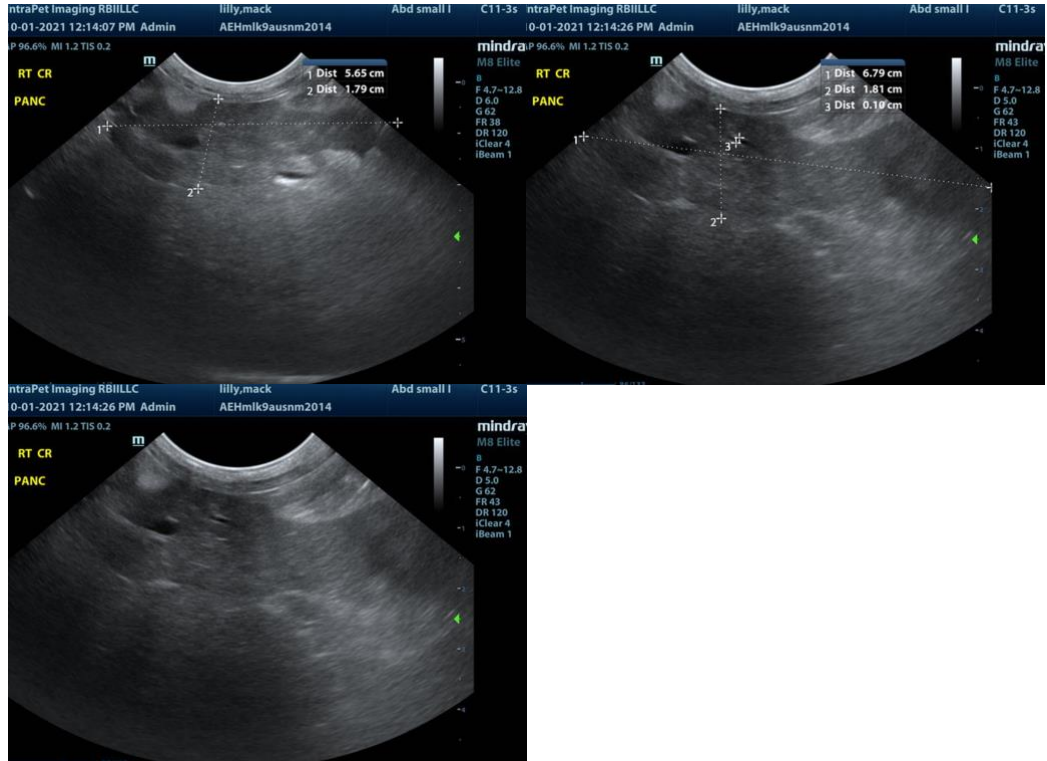
Insulin quality issues

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.

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