

**DATE PRESENTING CLINICAL SIGNS**

11/16/21

History: Not Eating, Diabetic Ketoacidosis, Lethargic, & ADR.

PATIENT

Date: 11-15-2021 Notes: Duke was newly diagnosed with diabetes and they seen ketones present as well.

Duke Brower

rDVM did radiographs - they believed the heart was enlarged. Patient had a neutrophilia present. Patient had a ALT: 167 Tbili: 6.2 BUN:34 Phosphorus: 2.8 Glucose:337 Na:138.

Patient has been vomiting for the past two days and not eating. Today patient was very lethargic and not moving.

SPECIES

Feline

Current Medications: Oral Buprenorphine 0.3mg/ml, Amp/Sulb (Unasyn) 1.5gm Injection (Per mL), Insulin - Humulin R U-100 Injection, Vitamin B Complex Injection (Per mL), Potassium Chloride 2mEq/mL Injection (Per mL), Metronidazole 5mg/mL Injection (Per mL)

BREED

DSH

Lab Results: USG 1.030, White cells 10, Glucose 269-420

Date of Previous IntraPet Ultrasound: No previous

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

SEX

Neutered Male

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

2016

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**

9.7 Pounds

The **kidneys** were slightly swollen owing to the diabetic state. The right kidney measured 4.61 cm. 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. Pyelectasia noted in the left kidney, may be owing to underlying infection.**INTERPRETED BY**Eric Lindquist, DMV
DABVP, Cert. IVUSS**Adrenal Glands**The regions of the **adrenal glands** were unremarkable.**IMAGING PERFORMED BY**

Rachel Brillhart RDMS

SpleenThe **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.**HOSPITAL NAME**Animal Emergency
Hospital**Liver**The **liver** was mildly enlarged. Parenchyma was uniformly hyperechoic to falciform fat without disruption of architecture. No masses were noted. The gall bladder and common bile duct were unremarkable. This presentation is most consistent with hepatic lipidosis with the minor potential for underlying lymphoma or inflammatory hepatopathy. The potential for these latter pathologies would be based on hepatic enzyme elevations and clinical profile. A 25-gauge US-guided FNA is warranted if any elevation in SAP or bilirubin is present or if anorexia is present to assess cytological disease (lipidosis or round cell neoplasia). Biopsy is warranted if an elevation in ALT is present to assess hepatic portal infrastructure yet should be done with caution owing to parenchymal fragility in these presentations.**REFERRING VET**

Dr. Roper

INVOICE

29834

Slight free fluid noted adjacent to the liver lobes.

Gastrointestinal

The **gastrointestinal** presentation revealed mild uniform prominence of the gastric mucosa as well as areas of "ropey" small intestinal wall with slight disruption of the normal 1:3 muscularis/mucosal ratio. Gastric stasis noted with anechoic fluid. The intestinal submucosa was slightly irregular, thickened and hyperechoic suggestive of low grade, chronic disease. No concerning lymphadenopathy was visible. No evidence of obstruction was present. Chronic inflammatory bowel disease is likely with a low possibility of an early neoplastic event such as lymphoma. Full thickness tissue biopsies via open laparotomy, ideally guided by intraoperative ultrasound in order to obtain the most representative mural sample, would be necessary to rule out this possibility.

Pancreas

Heterogeneous **pancreatic** changes noted on the right base of the pancreas. Slight duct dilation noted. Parenchyma was uniform. The left limb measured 0.8 cm. Subxiphoid palpation is recommended to assess for pain or discomfort associated with the pancreas.

ULTRASONOGRAPHIC FINDINGS

- Hepatic lipidosis pattern – clinical significance depends on alkaline phosphatase +/- bilirubin elevations, which should be monitored carefully.
- Possible minor right limb pancreatitis
- Unremarkable abdomen otherwise

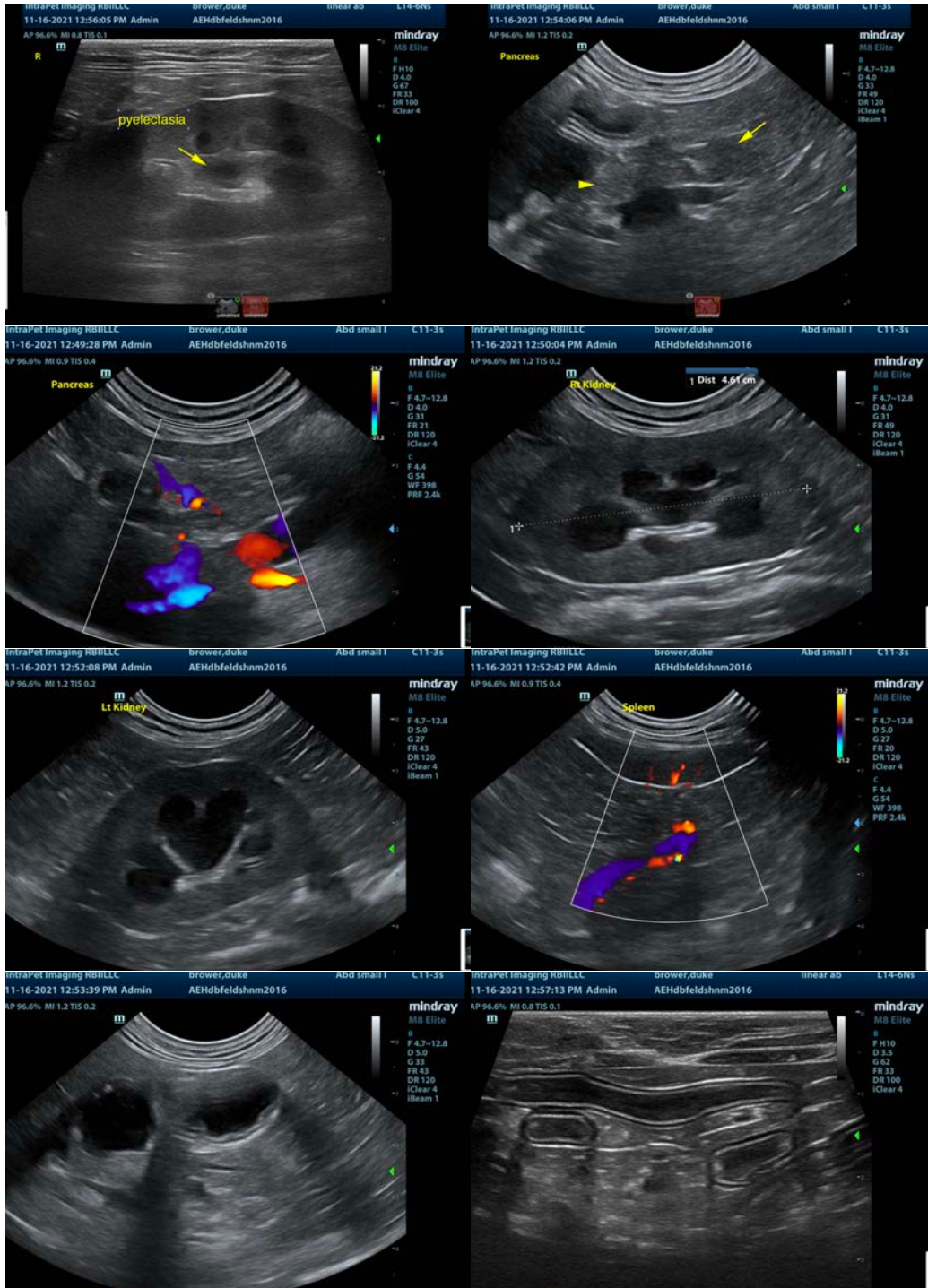
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

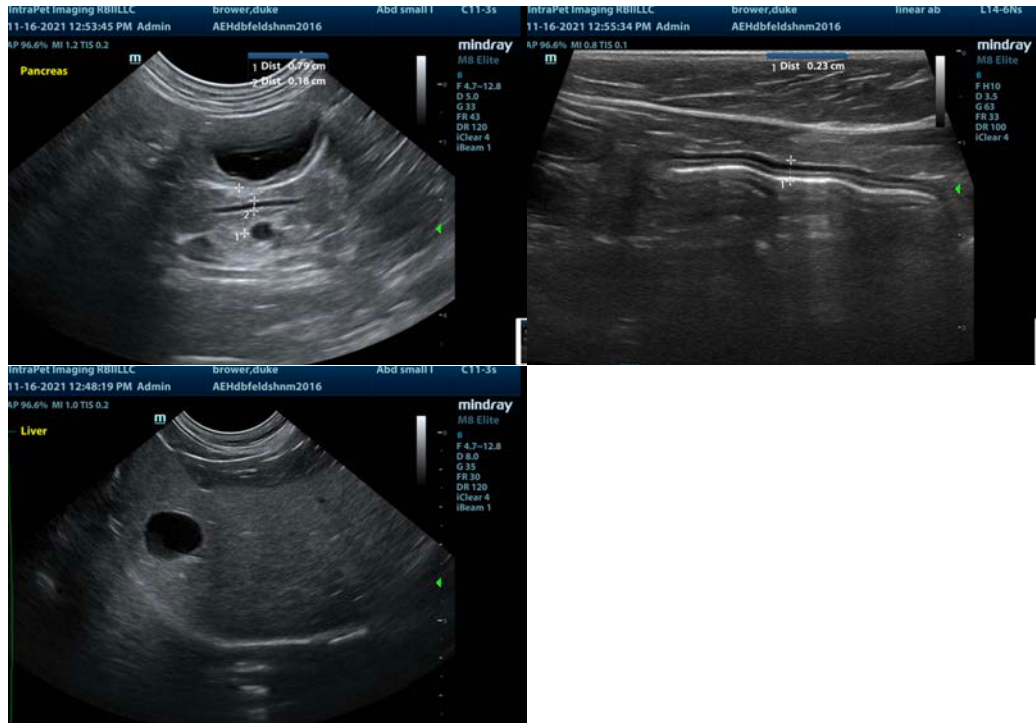
Management of the diabetic state warranted. Coverage for UTI recommended given the pyuria. No evidence of foreign bodies or neoplasia. FNA of the liver would be ideal to rule out more significant disease and confirm suspicion of lipidosis.

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
Eric.Lindquist@SonoPath.com