

**DATE PRESENTING CLINICAL SIGNS**

2/22/22

2-21-22: Known diabetic, lot of stressors over the past month- house burned down, moved in with family and then into an apartment. Patient has been having intermittent bouts of hyporexia. Owner adjusts insulin between 5-5.5 U Vetsulin depending on thirst and urination. Scheduled for BG curve on 3/5, but now vomiting, no interest in eating at all.

PATIENT

Georgie Willadsen

Current Medications: Protonix 1mL inj, Insulin, Metronidazole 5mg/mL 6.5mL, Maropitant 10mg/mL 0.45mL inj.

SPECIES

Canine

Lab Results: Creat 3.2, BUN 112, Phos 10.7, ALT 167, ALKP 247, Amylase 2225, Lipase 5967.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

BREED

Chihuahua mix

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Female, spayed

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 was noted. Ureteral papillae were normal.

AGE

2/21/2010

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for this age patient. Medullary structure differed distinctly from that of the cortex. Pyelectasia was noted in the left kidney and measured 0.38 cm. The left kidney measured 3.49 cm.

WEIGHT

9.5 lbs.

Adrenal Glands

The **adrenal glands** appeared slightly enlarged and swollen. No evidence of focal capsular expansion or invasion into the phrenic veins was 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. The left adrenal gland measured 1.5 x 0.72 cm at the caudal pole and 0.63 cm at the cranial pole. The right adrenal gland measured 1.83 x 0.59 cm at the caudal pole and 0.57 cm at the cranial pole.

INTERPRETED BY

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

HOSPITAL NAME

Animal Emergency
Hospital

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 was noted.

REFERRING VET

Dr. Goessling

INVOICE

13017

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. Comet tail lung pattern was noted through the diaphragm.

Gastrointestinal

The **gastrointestinal tract** revealed a thickened gastric wall with mild, echogenic luminal material. Some mucosal speckling and striations were noted in the small intestine. This may represent lymphangectasia. The colon was unremarkable.

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 subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

ULTRASONOGRAPHIC FINDINGS

Geriatric abdomen with mild, bilateral adrenal hypertrophy.

Likely mild pancreatitis.

Comet tail lung pattern.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient may be developing Cushing's. Chest radiographs are indicated to assess for alveolar disease. The kidneys do not appear end stage. Therefore, complicating factors owing to prerenal and renal state such as hypertension of the diabetic state and potential UTI are all issues. 72-hour IV fluid protocol, GI protectants, adjustment of insulin and coverage for systemic infection is all indicated. The prognosis is guarded long term.

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

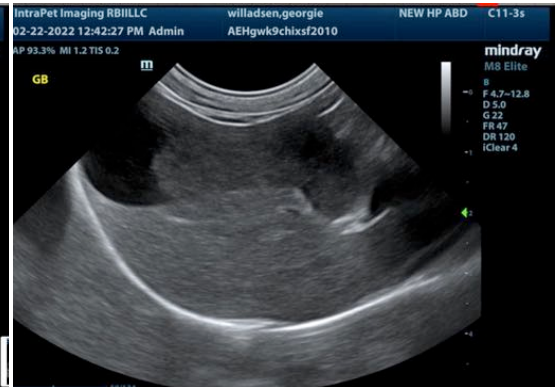
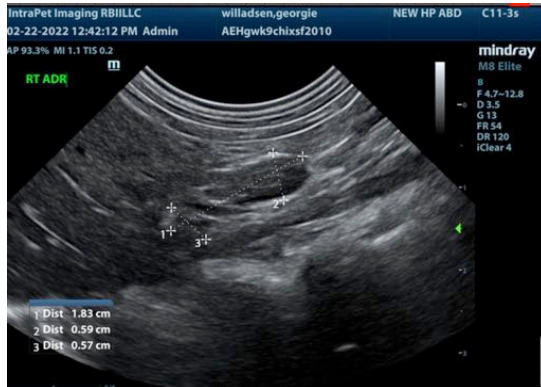
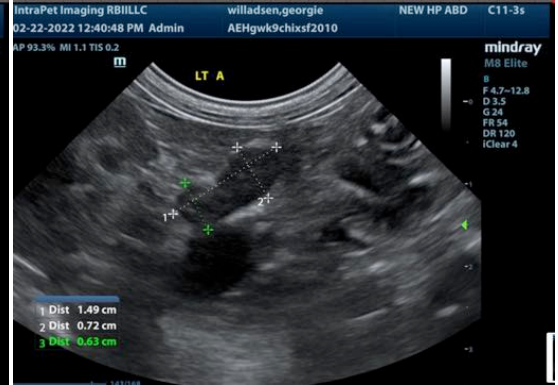
Antibodies to insulin

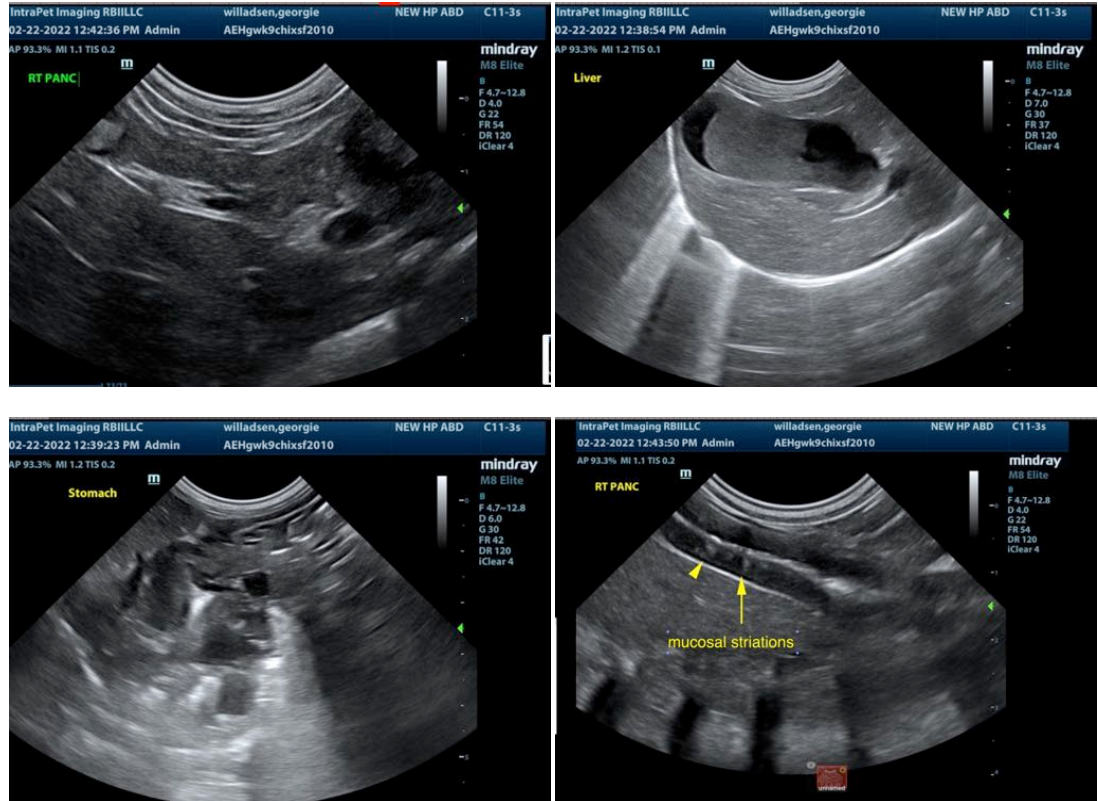
Underlying Neoplasia

Diffuse liver disease

For an additional charge an internal medicine consult can be utilized through [Sonopath.com](http://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>





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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