



**PATIENT**

Cash Geddes

**SPECIES**

Canine

**BREED**

Golden Retriever

**SEX**

Neutered Male

**AGE**

10 Years 6 Months

**WEIGHT**

37.2 kg

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

**IMAGING PERFORMED BY**

Dr. Donna Markland

**HOSPITAL NAME**

Island Mobile Paws VS

**REFERRING VET**

Mahalo Vet Hospital

**INVOICE**

42578

**DATE**

11/6/22

**PRESENTING CLINICAL SIGNS**

Diagnosed with insulinoma in February, 2022. Diagnosis was made via CT. The initial insulinoma was not seen on ultrasound done by internist. Removed with clean margins. Has been doing well. Recent recheck bloodwork showed low BG, borderline anemia, and low albumin/TP. Insulin panel pending. Primarily looking for insulinoma or other neoplasia. Cash's last meal was reported to be about 12 hours prior to this scan. Currently being treated for an abscess on his philtrum with oral clavaseptin. Is taking no other medications at this time.

Abnormal PE/Chem/CBC/UA Results: November 1, 2022: RBC=5.3 (5.4-8.7) HCT=0.38 (0.38-0.57) Hemoglobin=130 (134-207) Glucose=2.9 (3.5-6.3) TP=52 (54-75) Alb=26 (27-39) Rest of CBC/Chem/T4 is wnl

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

The residual prostate was free of pathology.

No evidence of medial iliac or sublumbar lymphadenopathy.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 6.2 cm. The right kidney measured 6.3 cm.

**Adrenal Glands**

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.48 cm at the cranial pole and 0.59 cm at the caudal pole. The right adrenal gland measured 0.60 cm at the caudal pole.

**Spleen**

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

**Liver**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. No evidence of hepatic masses, nodules, or primary or metastatic neoplastic criteria. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non distended in size with moderate, primarily dependent, non-organized, mildly echogenic debris. No evidence of gallbladder or peripheral gallbladder inflammation. The cystic duct and common bile ducts were normal without evidence of dilation.



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**Gastrointestinal**

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained moderate echogenic, nonshadowing ingesta most consistent with post prandial presentation without signs of ileus, obstruction or foreign material.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

**Pancreas**

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

**Free Abdomen**

No omental masses, lymphadenopathy, or evidence of peritoneal free fluid.

**ULTRASONOGRAPHIC FINDINGS**

- Mild age related kidneys
- Minor hepatic parenchymal remodeling
- Moderate gallbladder debris (non-mucocele)
- Sonographically unremarkable gastrointestinal tract with gastric ingesta
- Sonographically normal pancreas

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Largely mild geriatric abdomen without evidence of significant visceral pathology, including no overt intraabdominal neoplastic or metastatic criteria.

The presence of gastric ingesta is nonspecific and likely indicates post-prandial presentation. Correlation with most recent meal ingestion is recommended. If documented NPO prior to the ultrasound, the presence of gastric ingesta may indicate some degree of gastric hypomotility or metabolic stasis. The sonographic presentation of the ingesta was most consistent with food, without evidence of foreign material.

Full urinary workup +/- UPC suggested if evidence of proteinuria.

Potential for recurrent insulinoma, pending insulin panel, cannot be definitively excluded, as these tumors tend to be small and difficult to visualize sonographically.



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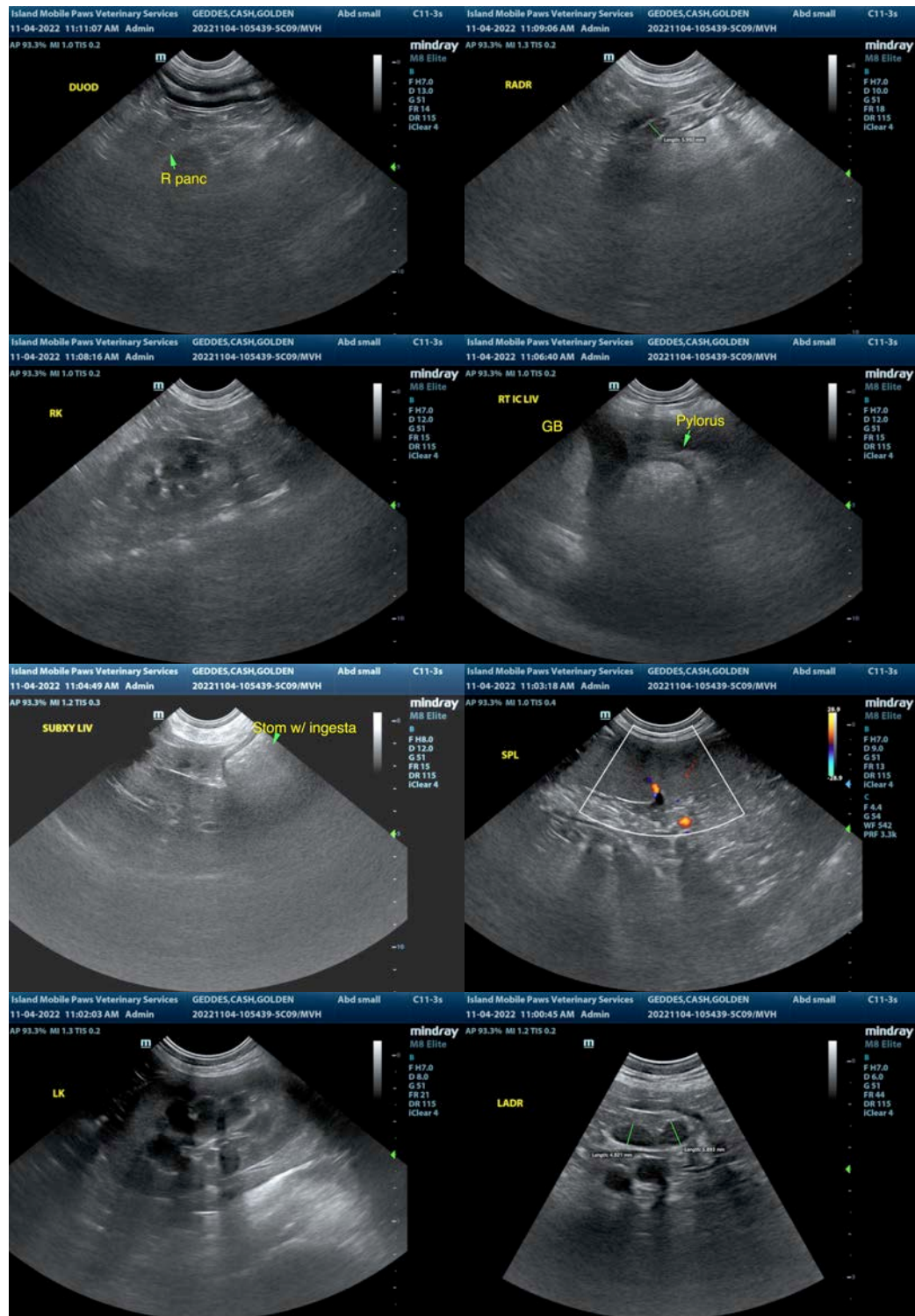
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**

info@SonoPath.com

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