



**PATIENT**

Sassy Huber

**PRESENTING CLINICAL SIGNS**

Recent onset of seizures

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: Repeatable hypoglycemia. Insulin producing tumor is suspected. Insulin/glucose ratio pending. Other labs are wnl.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

Mix

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 4 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.

**SEX**

FS

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 mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 6.1 cm in length. The right kidney measured 6.9 cm in length.

**AGE**

10.5yr

The area of the iliac trifurcation was free of pathology including no evidence of medial, iliac or sublumbar lymphadenopathy or masses.

**WEIGHT**

63lb

The area of the uterine remnant appeared normal and free of pathology.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.74 cm width at the caudal pole and 0.8 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.75 cm width at the caudal pole and 0.69 cm width at the cranial pole.

**INTERPRETED BY**

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

**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.

**IMAGING PERFORMED BY**

Trae Cutchin

**Liver/Gallbladder**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with mild non-organized echogenic debris. The cystic and common bile ducts were normal.

**HOSPITAL NAME**

Friendship Springs  
Veterinary Care

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**Gastrointestinal**

The stomach presented variable wall thickening. The lumen of the stomach contained minor retained anechoic fluid and luminal gas with no signs of ileus, obstruction or foreign material. Potential areas of gastric mural mineralization were visualized. A definitive gastric mural mass was not visualized. The gastric wall measured up to 0.75 cm in width.

**DATE**

05/02/2023



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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.

**SPECIES**

**Pancreas**

Canine

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

**BREED**

**Free Abdomen**

Mix

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

**SEX**

FS

- Mild chronic renal changes.
- Sonographically unremarkable bilateral adrenal glands.
- Normal liver.
- Gallbladder debris (non-mucocele).
- Heterogenous pancreas.
- Mild to variably thickened stomach containing minor retained fluid and luminal gas, possible although not definitive gastric mural mineralization.
- Sonographically unremarkable small bowel.

**AGE**

10.5yr

**WEIGHT**

63lb

**ULTRASONOGRAPHIC FINDINGS**

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No visualized hepatic or intestinal masses as a potential contributing factor to the hypoglycemia.

A definitive insulin producing tumor was not definitively visualized yet could be possible as these tumors tend to be small and difficult to visualize sonographically. Correlation with insulin: glucose on the same serum sample is recommended specifically if serum BG is >60.

The variably thickened stomach given lack of reported GI signs is of unclear clinical significance. Sonographically this may suggest some degree of chronic gastritis with potential for dystrophic mural mineralization. The possibility of early metastatic gastric neoplasia cannot be excluded. Assessment of Ca<sup>+</sup> could be considered if evidence of hypercalcemia, although not reported.

Three view chest radiographs are recommended if not done to assess for occult thoracic pathology.

Referral for potential advanced imaging, exploratory laparotomy with gross inspection of the area of the pancreas and gastric biopsies is likely indicated especially if abnormal insulin: glucose consistent with insulinoma.

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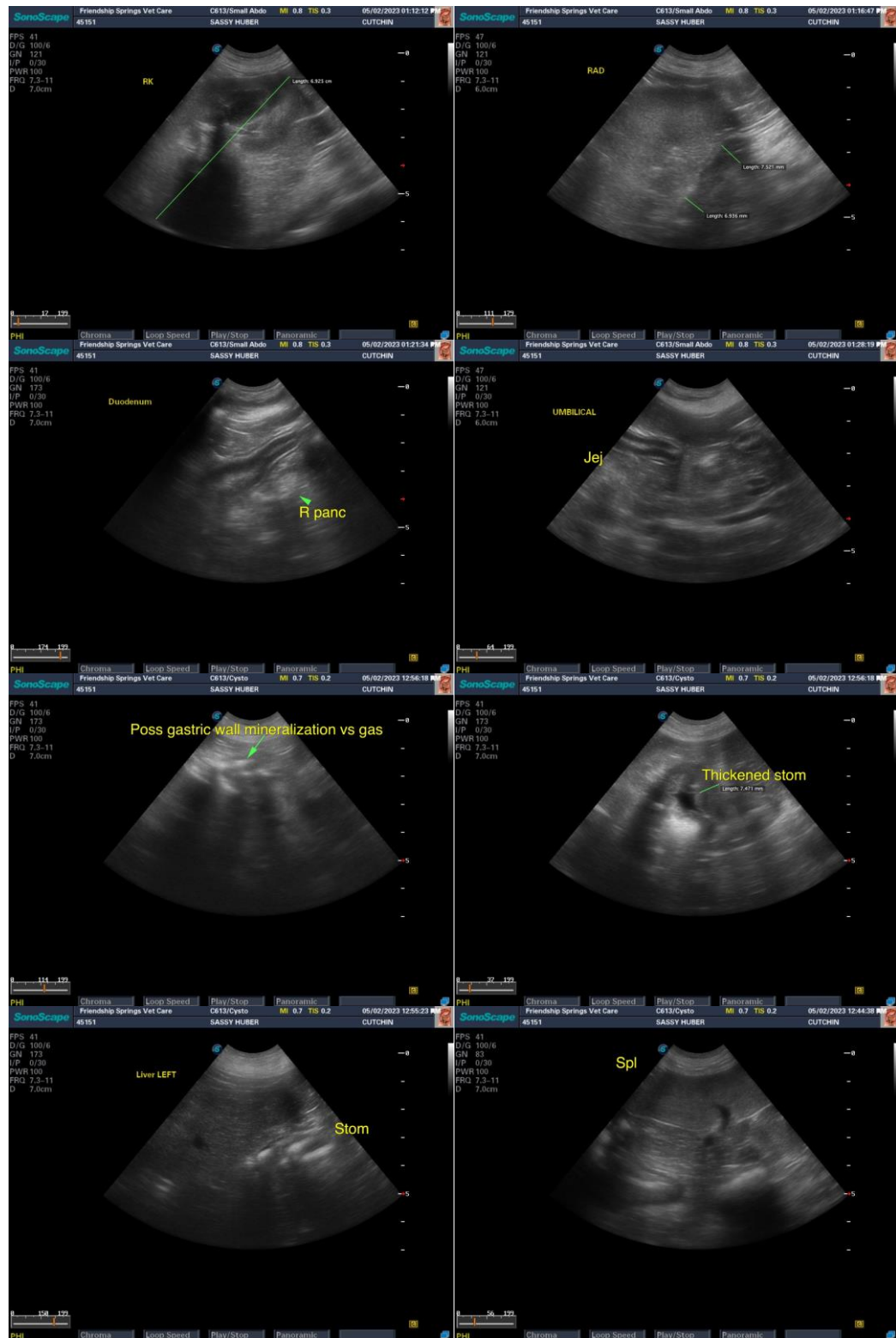
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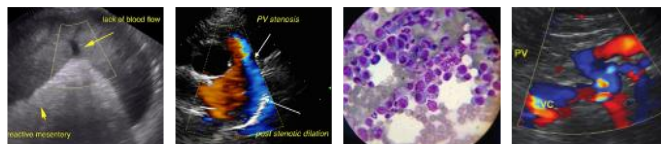
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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