

**DATE PRESENTING CLINICAL SIGNS**

9/13/22

HR80, pant, pink mm, CRT<2, hydration fine, NAD on abdominal palpation and thoracic auscultation LN palpation WNL, temp

PATIENT

Sophie Palewicz

checked BG from Bloodwork chem with glucometer and got 41, gave IV bolus dextrose and BG came up to 138; discussed with O if any similar episodes to give honey or karo syrup on gums and then call vet/ER discussed with O unsure why her BG is so low as OR she has been eating normally, adv follow-up with normal vet (Banfield Whitmarsh); discussed with O common causes of hypoglycemia (Sepsis (not present currently), profuse V+/D+ with anorexia (not present), or gotten into insulin/metformin/other drug that affects BG) and OR they have

SPECIES

Canine

insulin kept away from her in household and they are not aware of any metformin tablets missing/dropping, discussed possibility of insulinoma and would recommend repeat Abdominal ultrasound to assess

BREED

Mix

Current Medications: None listed.

Date of Previous IntraPet Ultrasound: 9/9/2021. See attached.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

SEX

Spayed Female

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**AGE**

4/30/13

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

WEIGHT

17.4 Pounds

The left kidney has a normal shape and size (4.1 cm) with mild pyelectasia at 0.21 cm. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

Kathleen Sennello DVM,
MS, Diplomate ACVIM
(Small Animal Internal
Medicine)

The right kidney has a normal shape and size. (4.81 cm) with mild pyelectasia at 0.22 cm. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

IMAGING PERFORMED BY

Rachel Brilhart RDMS

Adrenal Glands

The left adrenal gland is normal/borderline "plump" measuring 0.70 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

HOSPITAL NAME

Homeward Bound VS

The right adrenal gland is normal/borderline enlarged measuring 0.87 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

REFERRING VET

Dr. Vance

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

INVOICE

41269

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Duodenum wall measures 0.34 cm. Jejunum wall measures 0.28 cm with mild mucosal speckling visualized. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There are occasional visible mesenteric lymph nodes measuring 0.40 cm and 0.20 cm. The omentum is of normal echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Prominent, mottled pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Mild bilateral pyelectasia – Pyelectasia of the kidney(s) could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- Mild mucosal speckling – Bright mucosal speckling has been postulated to represent dilated lacteals or focal accumulations of mucus, cellular debris, etc.. in the mucosal crypts.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

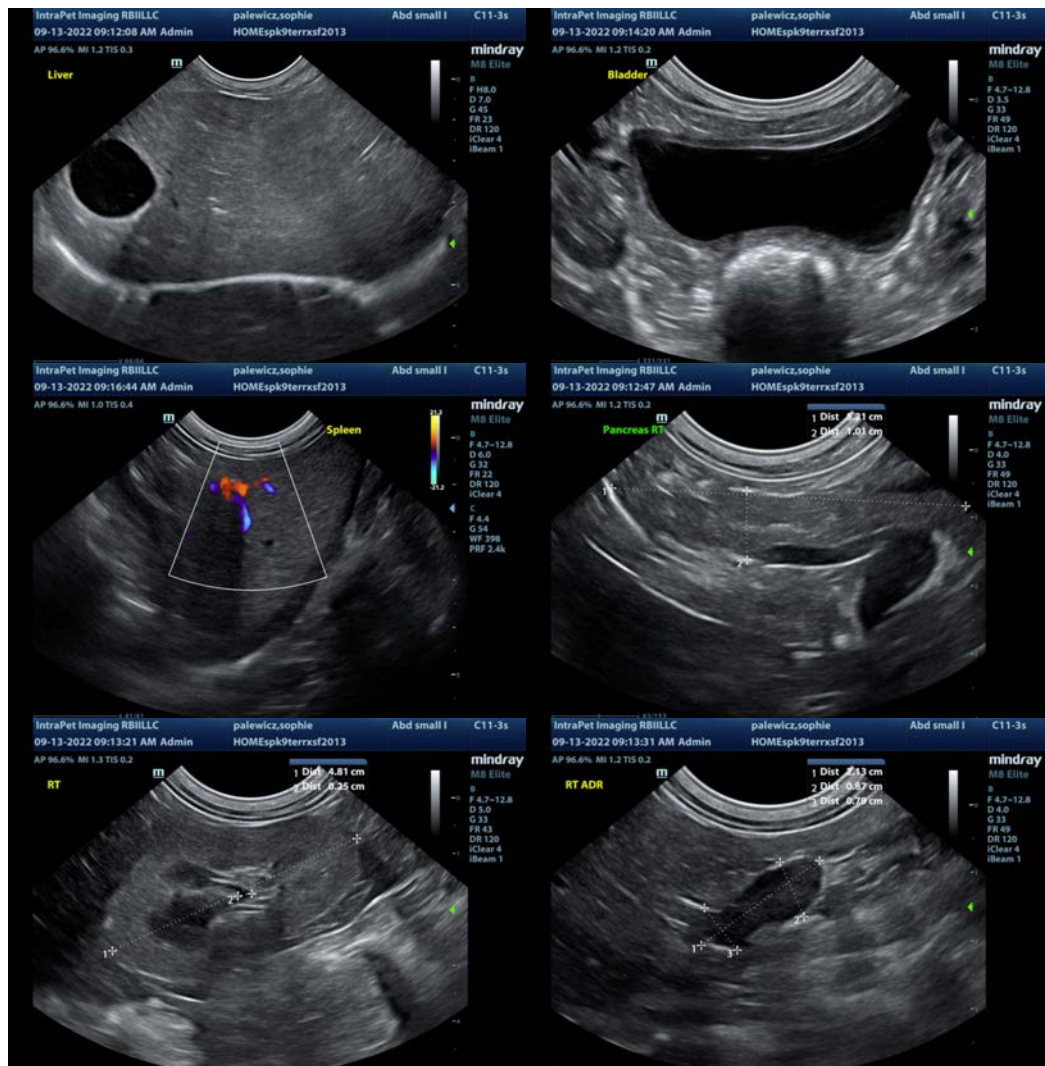
No focal mass lesions are visualized associated with the pancreas. Unfortunately, this does not rule out a diagnosis of insulinoma, as some of these mass lesions can be very small in size and difficult to visualize with ultrasound alone. There is mild pyelectasia visualized in both kidneys. Recommend a urinalysis and culture.

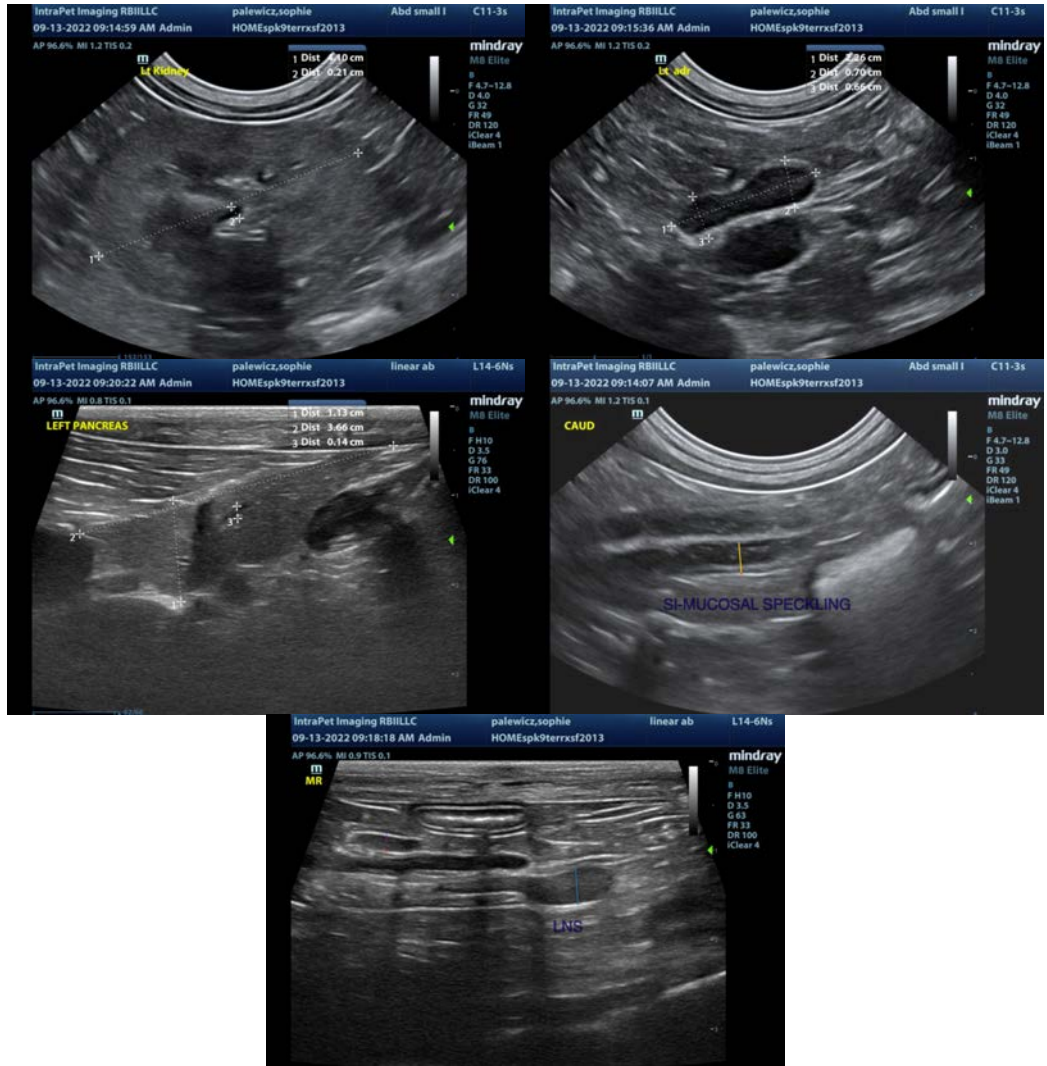
Additionally, there is mild mucosal speckling associated with the small intestine. Correlate this with the clinical history. If there is a history of chronic gastrointestinal signs, this could be an indicator of underlying GI disease, and workup for primary GI disease may be considered.

The most common differentials for hypoglycemia include neoplasia (typically a large mass effect or leiomyoma, leiomyosarcoma, etc.), insulinoma, Addison's disease, liver dysfunction, portosystemic shunt, sepsis (seems unlikely), etc. Correlate these considerations with clinical signs. You could consider an ACTH

stimulation to screen for Addison's disease (although both adrenals are somewhat plump in appearance). Additionally, you could consider a liver function test. If the liver function test is significantly elevated, then I would consider a liver biopsy and/or a CT scan to evaluate for possible liver shunt. Additionally, consider an insulin to glucose ratio to screen for an insulinoma. This test should be run when the patient is actively hypoglycemic (blood glucose <60, ideally in the 30-40 range). If insulin levels are high despite significant hypoglycemia, then an insulin secreting tumor is very likely and you could consider a contrast CT scan to see if you can get more definition/resolution on the pancreas to look for a smaller lesion.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.





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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