



**DATE PRESENTING CLINICAL SIGNS**

7/27/22 Chronic, infrequent vomiting for >1 year and more recent gradual weight loss (down from 11.36 pounds last year); elevated TT4, but also substantially elevated liver enzymes on bloodwork

**PATIENT**

Penelope Barnes Current Medications: None. The owner is contemplating treatment options for hyperthyroidism at this time. Lab Results: moderate-severely elevated ALT and mildly elevated ALKP; elevated BUN; elevated TT4.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Declined.

**SPECIES**

Feline

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

**Urinary System**

DSH

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

**SEX**

Spayed Female

The right kidney is normal in size (3.47 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**AGE**

4/23/10

The left kidney is normal in size (3.39 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**WEIGHT**

8.5 Pounds

**Adrenal Glands**

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

Adrenal glands are bilaterally uniformly plump egg-shaped adrenals (left measures 0.53, right measures 0.75), hypoechoic in echogenicity with bilateral dystrophic mineralization noted. This is most likely a benign age-related change. This change can be caused by chronic stress/disease, so investigation for/management of other disease (chronic kidney disease, hyperthyroidism, etc.) is recommended.

**IMAGING PERFORMED BY**

Stephanie Pearce  
RDCS, RVT

**Spleen**

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

**HOSPITAL NAME**

Stevenson Village VH

**Liver**

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

**REFERRING VET**

Dr. Rathbun

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

**INVOICE**

39877

**Gastrointestinal**

The visible stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. However, the stomach is moderately distended with echogenic luminal contents and gas that produce strong acoustic shadow. The material extends into the pylorus and contains an echogenic linear structure that extends through the pylorus, into the lumen of the duodenum.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty, except for the above described echogenic linear structure extending from the stomach through the pylorus and into the duodenum, resulting in corrugation/plication of the proximal duodenum.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

### ***Pancreas***

Pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and has a mildly irregular undulating contour. Parenchyma is coarse with mixed echogenic remodeling noted. Pancreatic duct dilation is noted.

### ***Free Abdomen***

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

## **PRIMARY FINDINGS**

- Proximal small bowel luminal foreign body, suspected to be anchored within the stomach. Normal ingesta/gas and hyperperistalsis, etc. cannot be definitively ruled out, but is considered much less likely than a linear foreign body.

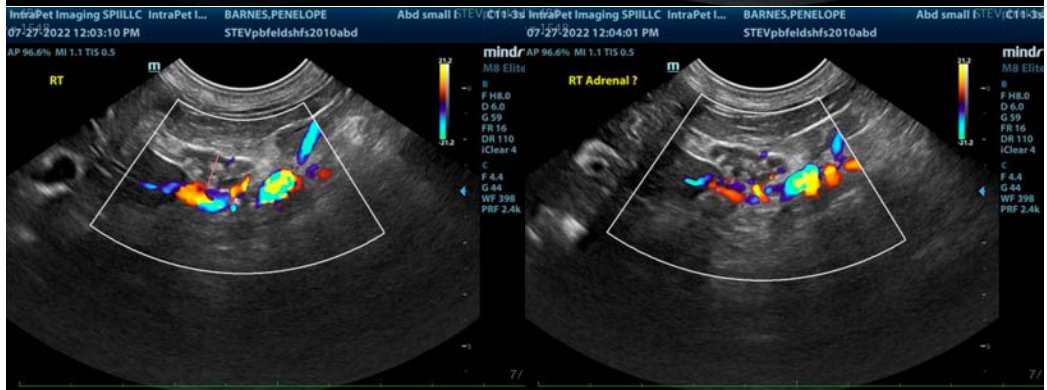
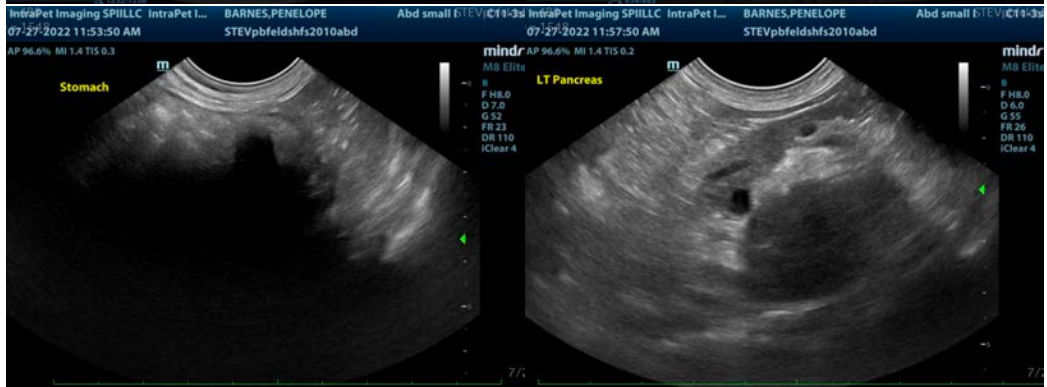
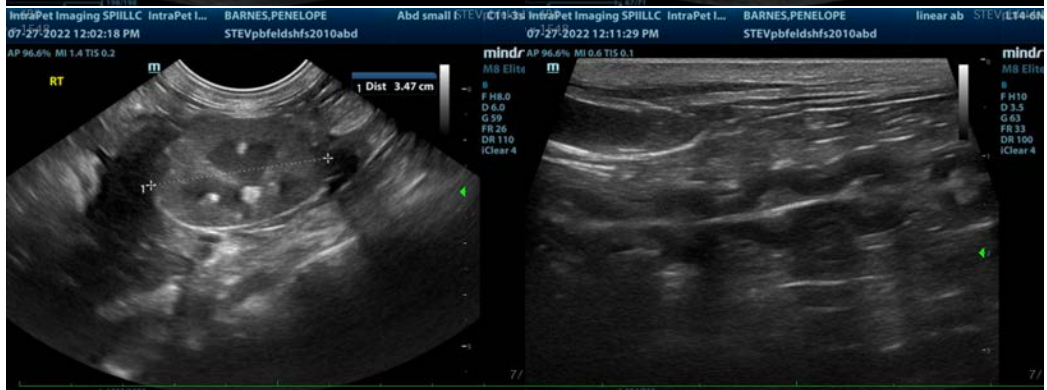
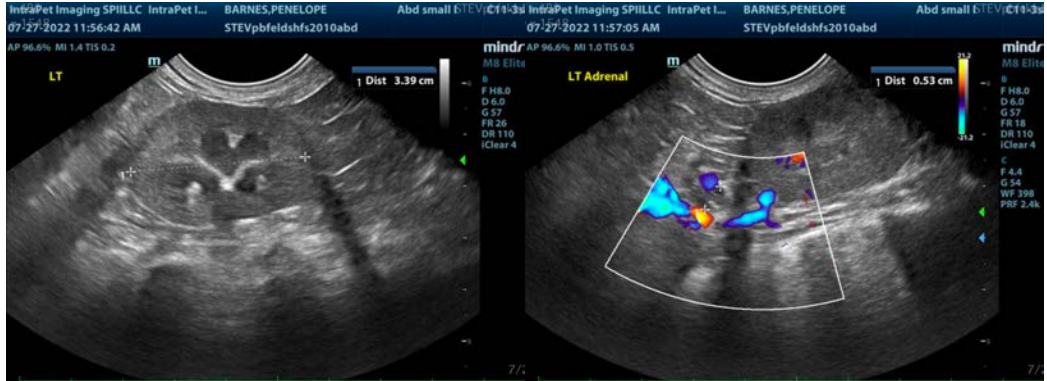
## **SECONDARY FINDINGS**

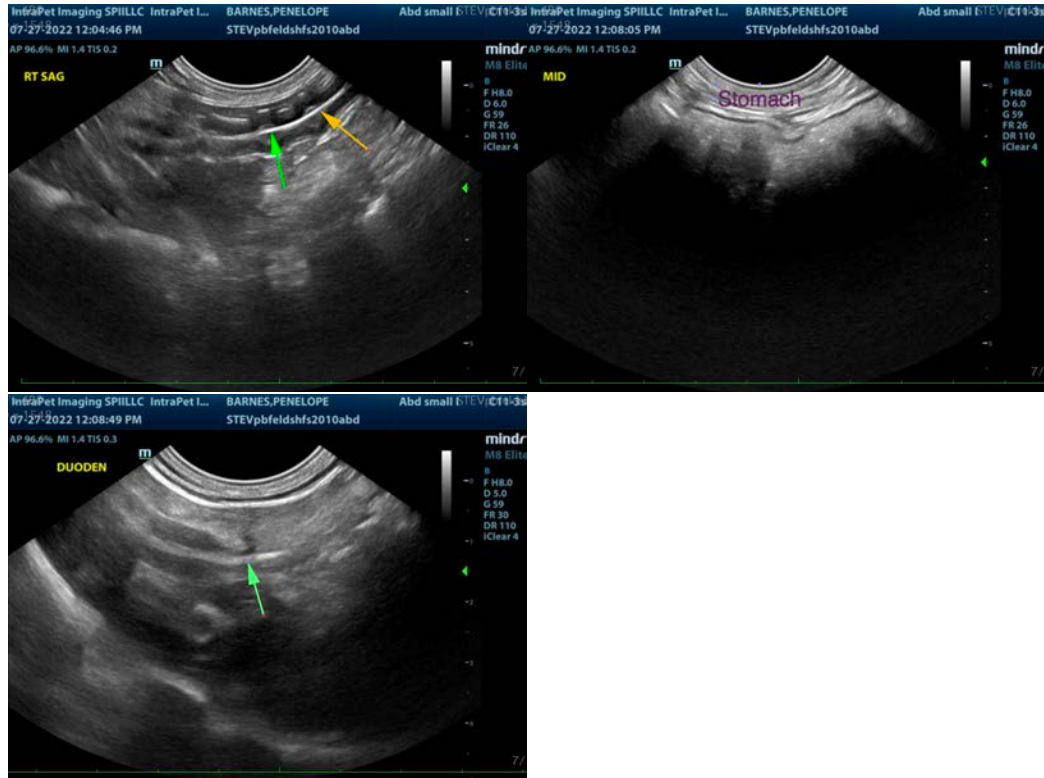
- Age related adrenal changes
- Chronic active pancreatitis

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

This patient's chronic gastrointestinal signs, weight loss, and likely liver enzyme changes are almost likely secondary to the reportedly recently diagnosed hyperthyroidism. Therefore, management of the hyperthyroidism is recommended. However, these images are concerning for a linear foreign body beginning in the stomach and extending into the proximal duodenum. Therefore, in addition to ultimately managing the hyperthyroidism, an exploratory laparotomy for removal of the suspected gastric/proximal small bowel linear foreign body is recommended more immediately. Given the chronicity of this patient's gastrointestinal signs, biopsies of the bowel, especially if visibly or palpably abnormal, are also recommended at the time of surgery to definitively rule out infiltrative bowel disease on top of hyperthyroidism as a cause for the chronic vomiting and weight loss.

A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.





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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