

**DATE PRESENTING CLINICAL SIGNS**

3/21/23

Weight loss, chronic, intermittent vomiting. Feeding smaller meals decreases frequency. Hx of grade II/VI heart murmur, OA/DJD in hind end.

**PATIENT**

Maggie Nealon

Current Medications: Gabapentin 150-300mg BID x 3 days; Carprofen 37.5mg BID OR PRN.

Lab Results: CBC/Chem/UA unremarkable.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Andi Parkinson, BS, RDMS.

**SPECIES**

Canine

**BREED**

Hound X

**SEX**

Spayed Female

**AGE**

12/28/11

**WEIGHT**

38.8 Pounds

**INTERPRETED BY**

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

**HOSPITAL NAME**

Timonium AH

**REFERRING VET**

Dr. Montessi

**INVOICE**

46052

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****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.

The left kidney has a normal shape and size (5.28 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 pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.41 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 pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.49 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.

The right adrenal gland is normal in size measuring 1.11 cm at the cranial pole, 0.65 cm at the caudal pole, and 2.29 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is somewhat abnormal in appearance in that there is a slightly irregular hyperechoic region/nodule on the cranial pole measuring approximately 1.15 cm x 0.55 cm. There is no evidence of vascular invasion visualized.

**Spleen**

The spleen is subjectively normal in size. The spleen echotexture is heterogenous and mildly mottled, 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.

**Liver**

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is mildly heterogenous in echotexture with subtle, indistinct focal mottling. 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 moderate ingesta. 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 relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measures 0.48 cm. 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 normal and isoechoic to surrounding 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, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

## **ULTRASONOGRAPHIC FINDINGS**

- Mildly mottled spleen – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis. This could be within normal limits for this individual.
- Heterogeneous liver – The hepatic changes are consistent with age-related parenchymal remodeling and are not considered clinically significant at this time.
- Moderate shadowing ingesta within the gastric lumen – Correlate with the feeding history and abdominal radiographs. If the patient was adequately fasted consider such differentials as delayed gastric emptying, a partial outflow tract obstruction (none seen) or ingested foreign material.
- Hyperechoic nodule on the cranial pole of the right adrenal – Adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.

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

The changes observed associated with the spleen and liver are mild and subjective. If round cell neoplasia is a primary differential, then consider a fine needle aspirate of the spleen.

There is a small amount of shadowing ingesta visualized within the gastric lumen. Correlate this with abdominal radiographs and the feeding history. If this patient was adequately fasted, consider such differentials as delayed gastric emptying, partial pyloric outflow tract obstruction, etc. (none observed).

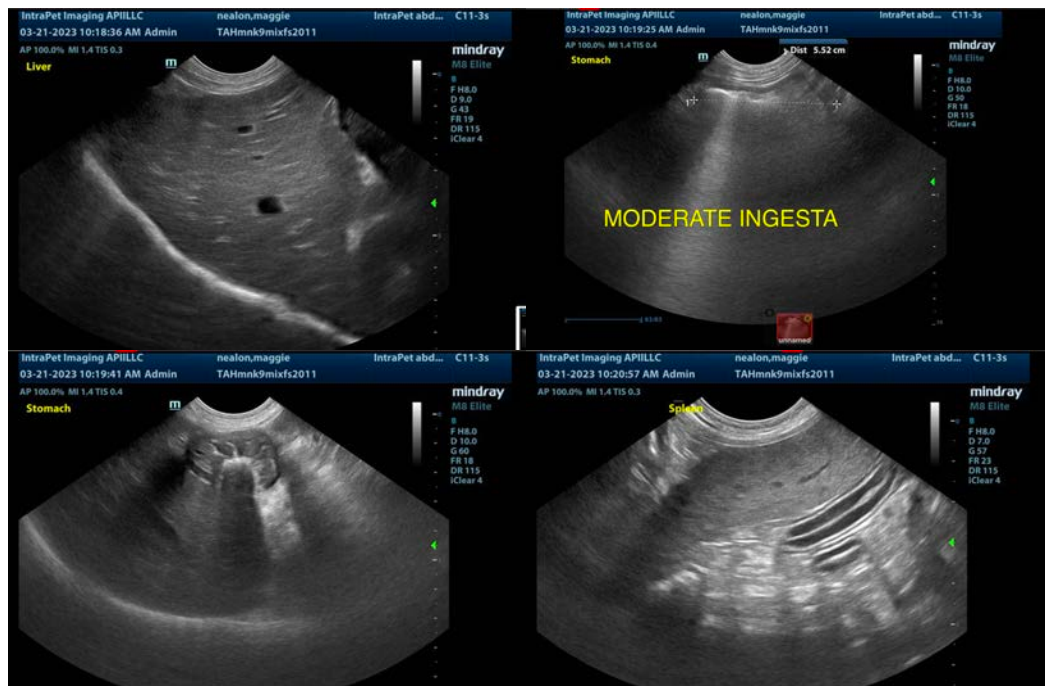
There is a small hyperechoic nodule visualized in the cranial pole of the right adrenal. The significance of this is uncertain. This could represent a benign lesion or an early neoplastic lesion, and it could be secreting hormones or be non-secretory. Correlate these findings with clinical signs and appearance on physical exam. If hormone excess is suspected, consider adrenal function testing. Additionally, recommend a blood pressure evaluation. Moving forward, if surgical removal is desired, a contrast CT scan would be indicated to further evaluate this lesion and to look for evidence of vascular invasion. If a more conservative approach is desired, recommend continued monitoring with ultrasound and recheck in approximately three months. I suspect this is incidental and unrelated to the chronic vomiting reported.

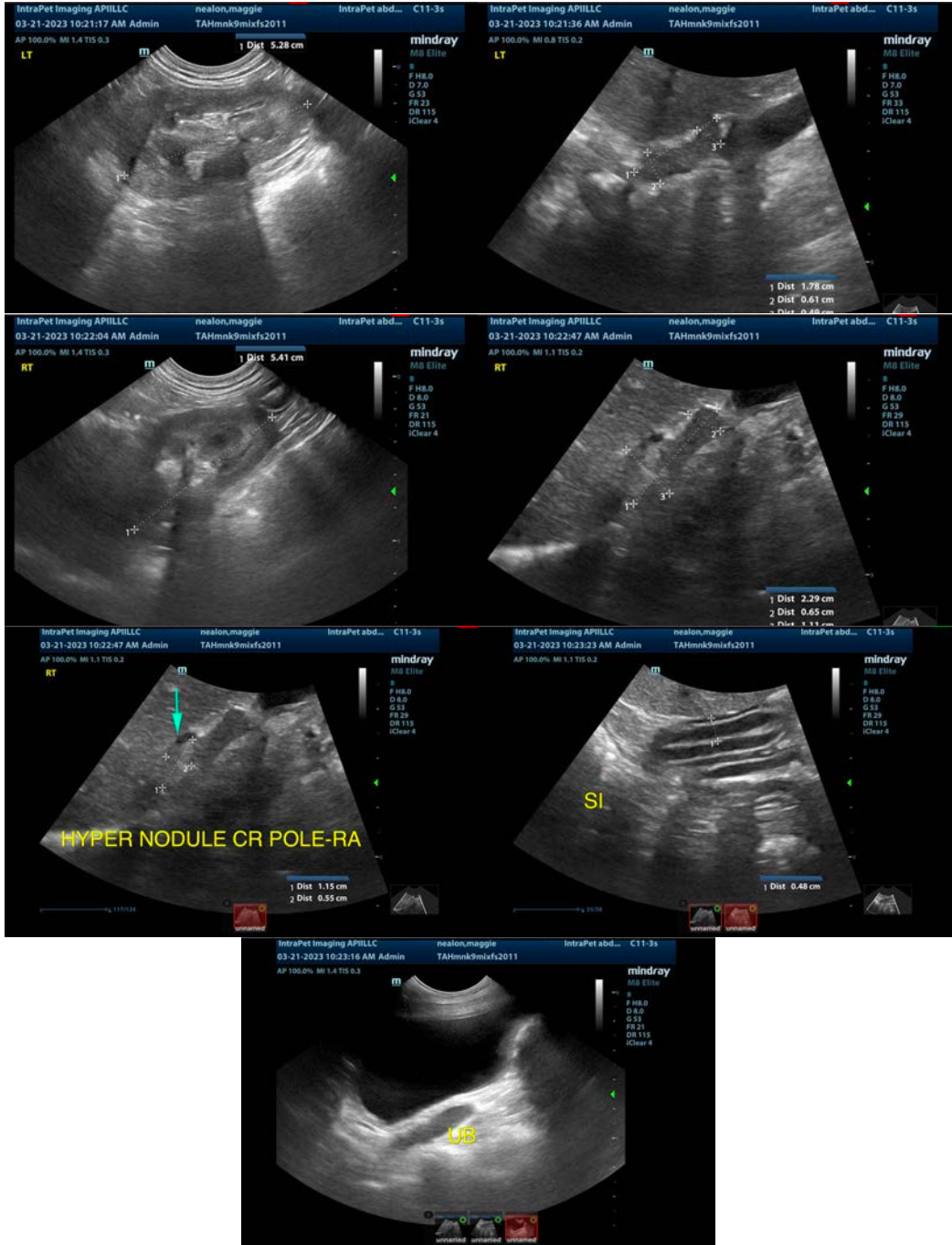
A definitive cause for the weight loss and vomiting reported is not observed.

Consider such differentials as food allergy/dietary intolerance, GI parasitism, chronic pancreatitis, IBD and less likely neoplasia, etc..

- Consider a novel protein/hydrolyzed protein diet (exclusively at least 4-6 weeks)
- Consider a GI panel to Texas A&M for evaluation of B12 levels, folate, PLI/TLI etc.. to further evaluate for pancreatic/small intestinal disease.
- Recommend pre- and probiotic therapy.
- If chronic vomiting persists, you could consider obtaining GI biopsies.

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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