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**DATE PRESENTING CLINICAL SIGNS**

5/31/22 Intermittent vomiting and diarrhea for about 1 month. Seen multiple times with symptomatic treatment offering improvement. When o tries to transition back to regular diet from EN diarrhea returns.

**PATIENT**

Ryleigh Deets Current Medications: Provable and EN.  
Lab Results: 4/22/2022 CBC WNL, Chem WNL, U/A SG >1.040, pH 7.0, Prot +.  
Radiographs: Suspected FB, resolved with treatment, as seen on repeat rads, no FB seen in stool however.  
Date of Previous IntraPet Ultrasound: No previous.

**SPECIES**

Canine Sedation: Not required to complete full diagnostic ultrasound.  
Stat Report: Not requested.

**BREED**

Labrador

**SEX**

Spayed Female

**AGE**

3/17/11

**WEIGHT**

54 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Rachel Brilhart RDMS

**HOSPITAL NAME**

Hickory Vet Hospital

**REFERRING VET**

Dr. Lyle

**INVOICE**

38099

**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 (5.88 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of 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 (4.93 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of 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 0.67 cm at the cranial pole, 0.48 cm at the caudal pole, and 2.48 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat irregular in appearance in that there is a hyperechoic region within the cranial pole measuring 0.60 cm x 0.51 cm. This lesion mildly deviates the splenic capsule with no evidence of vascular irregularity.

The right adrenal gland is normal in size measuring 0.62 cm at the cranial pole, 0.68 cm at the caudal pole, and 2.13 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 irregular in appearance in that there is a hyperechoic in the cranial pole measured 0.63 cm x 0.58 cm. There is no obvious vascular irregularity.

**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.

**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 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 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 measured 0.36 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.

### ***Other***

A brief view of the heart was submitted. No significant pericardial effusion was seen.

## **ULTRASONOGRAPHIC FINDINGS**

- Bilaterally irregular adrenal glands with hyperechoic foci/nodule – Both adrenals have some irregularity and hyperechoic lesions/nodules. They are not overtly enlarged. These changes could be consistent with hyperplasia, or less likely early metastatic or neoplastic lesions.

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

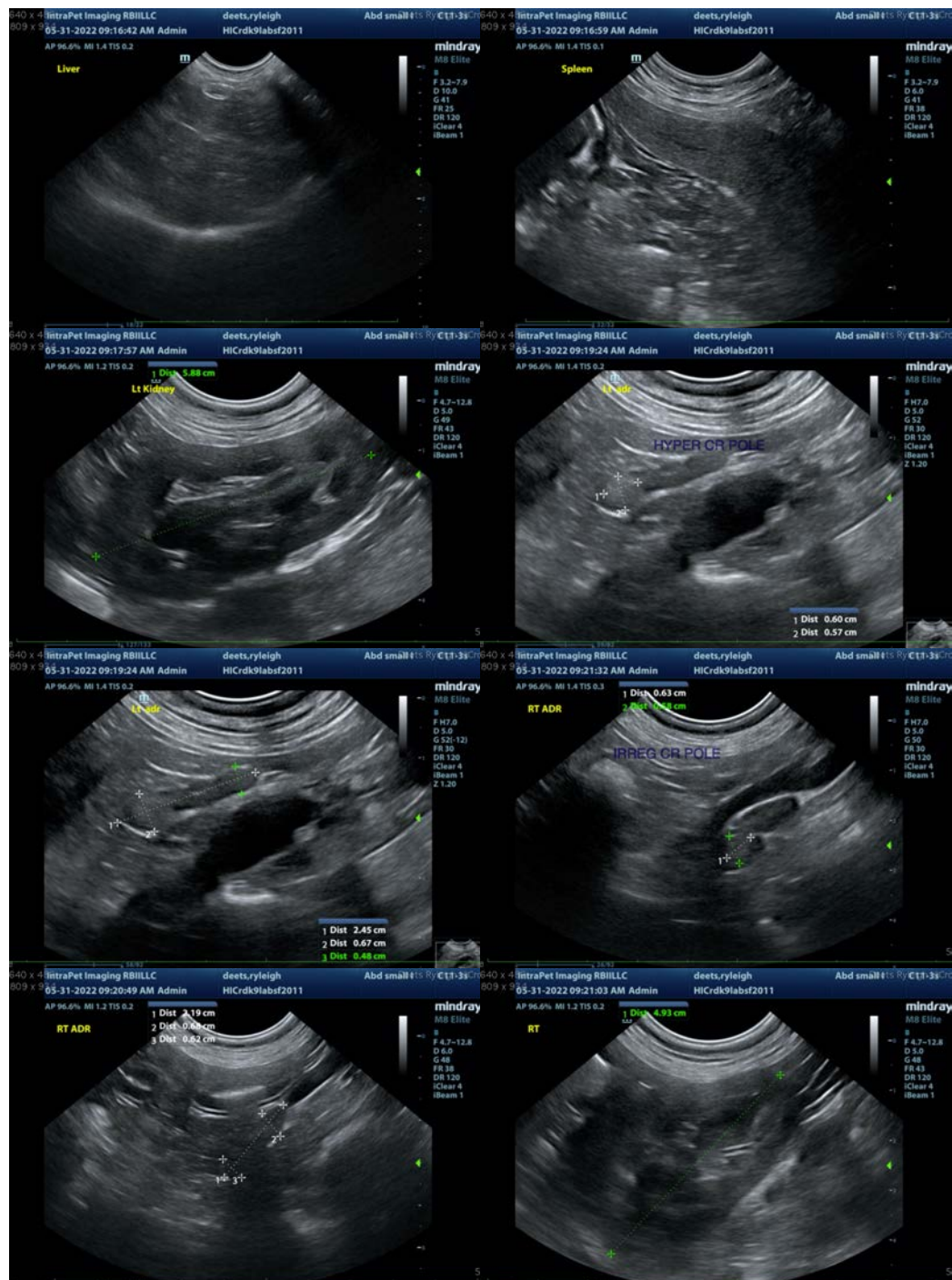
No focal lesions are visualized associated with the gastrointestinal tract to explain the vomiting and diarrhea reported. It is not unusual to have causes for chronic diarrhea that cannot be diagnosed by ultrasound alone. Consider such differentials as food allergy/dietary intolerance, GI parasitism, pancreatitis (not evident on today's scan), dysbiosis, IBD, or less likely intestinal neoplasia.

- Recommend a novel protein/hydrolyzed protein prescription diet.
- Recommend chronic probiotic therapy.
- Consider a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestine.
- If GI symptoms persist, consider obtaining GI biopsies.

There are somewhat subtle hyperechoic lesions visualized in both adrenal glands. These are relatively subtle lesions, which could be consistent with hyperplastic nodules, could be "incidentalomas", or could be consistent with early neoplastic change. My suspicion is that these are benign lesions, but recommend

continued monitoring with ultrasound and a blood pressure evaluation. If signs of Cushing's are present, you could consider adrenal function testing (when the patient is not feeling ill).

Consider three view thoracic radiographs to rule out 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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