

DATE **PRESENTING CLINICAL SIGNS**

Presented for increased licking/swallowing and reflux/regurge in July-no notable pathology on rads, senior BW mostly unremarkable-mild elevation in ALT. P responded well to conservative tx with sucralfate and plan to recheck BW. Presented again to colleague for vomiting undigested food and bile w/lethargy and decreased appetite. Treated for gastroenteritis w/metronidazole and cerenia. Energy improved. vomiting off and on continued' Rechecked fast scan w/ in house US. showed GB

PATIENT

Lucy Lusby

debris/possible mucocele. p also had new heart murmur 2/6 detected at last recheck
Current Medications: Metronidazole 500mg BID, Amoxicillin 500mg BID

SPECIES

Canine

ursodiol 300mg SID, sucralfate 1g Q8-12 hrs, Cerenia 60mg SID
Lab Results: 7/28 ALT 213. recheck chem pending

BREED

Pharoah Hound

Radiographs: non-specific - mild increased opacity/possible mass in cranial abdomen, some gas in intestines during gastroenteritis flare

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

SEX

Spayed female

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

AGE

11/16/08

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

WEIGHT

58.3 lbs

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 7.02 cm.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 3.2 x 0.79 cm at the caudal pole and 0.86 cm at the cranial pole. The right adrenal gland measured 2.7 x 0.78 cm at the caudal pole and 0.85 cm at the cranial pole.

HOSPITAL NAME

Northwind AH

REFERRING VET

Dr. Repsher

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

INVOICE

40161

Liver

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some age-related parenchymal remodeling was noted but likely not clinically significant at this time. Occasional hypoechoic nodule was noted. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder was mildly over distended with suspended

and dependent debris, yet not to the level of emerging mucocele, yet sludge appears to be mildly excessive. No adjunctive inflammation was noted.

Gastrointestinal

The **gastrointestinal** presentation revealed mild uniform prominence of the gastric mucosa as well as areas of "ropey" small intestinal wall with slight disruption of the normal 1:3 muscularis/mucosal ratio. The gastric wall was mildly thickened with increased submucosal echogenicity and thickness. This is consistent with chronic gastritis. The intestinal submucosa was slightly irregular, thickened and hyperechoic suggestive of low grade, chronic disease. No concerning lymphadenopathy was visible. No evidence of obstruction was present. Chronic inflammatory bowel disease is likely with a low possibility of an early neoplastic event such as lymphoma. Full thickness tissue biopsies via open laparotomy, ideally guided by intraoperative ultrasound in order to obtain the most representative mural sample, would be necessary to rule out this possibility.

Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

ULTRASONOGRAPHIC FINDINGS

Mild chronic gastritis pattern.

Minor intestinal thickening. Underlying food hypersensitivity or inflammatory bowel is suspected.

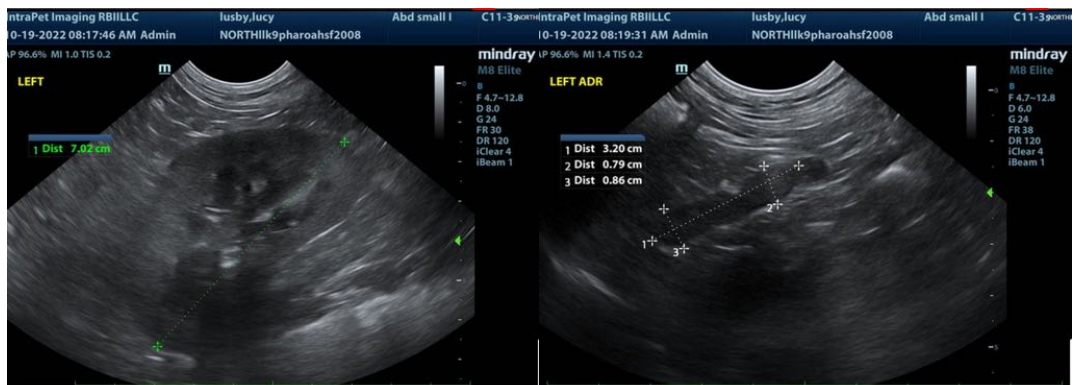
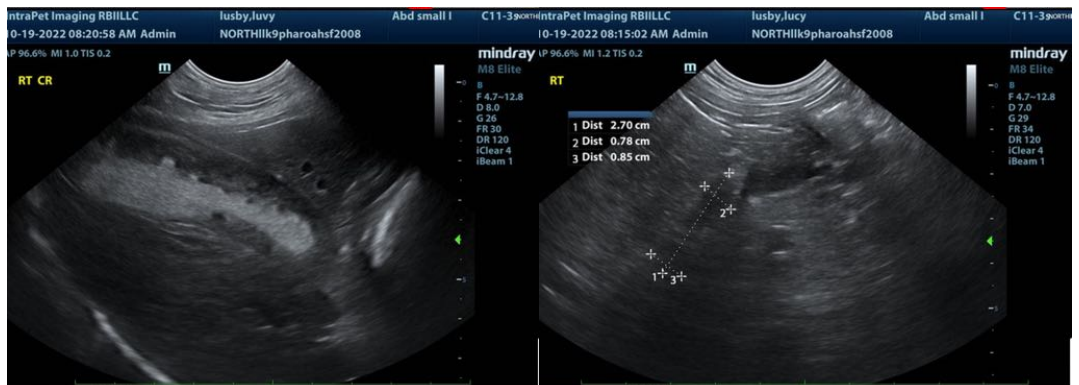
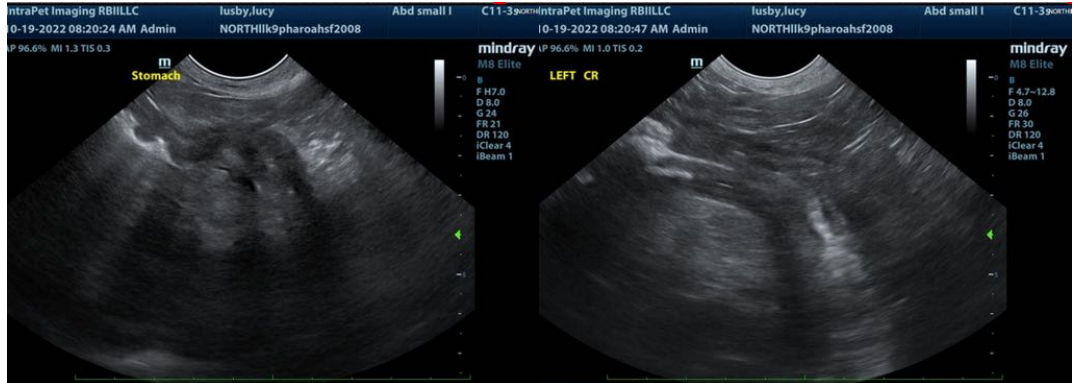
Minor, excessive gallbladder debris and heterogenous hepatic changes. Subjectively benign.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

GI protectant protocol such as the following can be considered. Endoscopy would be ideal to obtain mucosal biopsies. No overt neoplastic criteria is present; however, preneoplastic state cannot be completely ruled out. Fecal exam and hydrolyzed diet may be fruitful in this patient. It is debatable on whether Ursodiol is necessary at this time, but could be considered over the next 6-8 weeks. Recheck sonogram is recommended at that time to ensure that the gastrointestinal tract is adequately resolved.

Helicobacter/Gastritis protocol

A clinical trial of **Zithromax (Dogs: 5-10 mg/kg p.o. q24h. May increase dosing interval to q48h after 3-5 days of treatment)**, **Metronidazole (10-20 mg/kg p.o. b.i.d.)**, **Pepcid (0.5-1 mg/kg s.i.d.)** and **Sucralfate (0.5-2 g/dog PO)** or **Omeprazole (1 mg/kg p.o. s.i.d.)** over the next 3 weeks along with a **novel-protein or hydrolyzed diet** with slurry feeding b.i.d./t.i.d. over the next 2-4 days and then increase to canned diet bid. Dry food should be avoided over the next 4 weeks. A recheck sonogram to assess GI improvement or progression would be ideal in 4 weeks.





The information and recommendations provided are based on the images presented by the referring veterinarian. 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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