

**DATE PRESENTING CLINICAL SIGNS**

6/17/22

PATIENT

Sugar Canatella

SPECIES

Canine

BREED

Chihuahua

SEX

Spayed Female

AGE

2/14/08

WEIGHT

9.25 Pounds

INTERPRETED BYEric Lindquist, DMV
DABVP, Cert. IVUS**IMAGING PERFORMED BY**

Rachel Brillhart RDMS

HOSPITAL NAME

Chadwell AH

REFERRING VET

Dr. Jones

INVOICE

16173

Vomiting small amounts of fluid and food, increasing frequency; scratching at sides of abdomen, seems uncomfortable. Initially found to have severe dental disease and discomfort - dental cleaning with extractions 6/14. No improvement to "spitting up" which can occur up to every 30 mins. Still has appetite, no fever.

Current Medications: Cerenia 4mg SQ on 6/16, Finishing Clavamox from 6/14.

Radiographs: Stomach appeared large/distended on radiographs 6/16 with possible radiopaque material. Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The **urinary bladder** itself was unremarkable. A minor amount of bladder sand was noted, measuring up 0.36 cm.

The **kidneys** revealed moderate degenerative changes with multifocal cortical medullary and pelvic calculi. The largest calculus measured up to 0.23 cm. Irregular renal contour noted and mild subnormal size noted. The right kidney measured 3.17 cm. The left kidney measured 3.5 cm. Pyelectasia was noted in the left kidney, measuring 0.23 cm.

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 right adrenal gland measured 1.29 cm x 0.58 cm at the caudal pole and 0.54 cm at the cranial pole. The left adrenal gland measured 1.37 cm x 0.57 cm at the caudal pole and 0.59 cm at the cranial pole.

Spleen

The **spleen** exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

Liver

The **liver** itself was unremarkable. Biliary and gallbladder calculi were noted. The gallbladder calculus measured up to 1.0 cm, nonobstructive at the time of the sonogram. Common bile duct calculi were also noted, the largest of which measured 3.0 mm, nonobstructive at the time of the sonogram. However, post hepatic obstruction can occur at any time.

Gastrointestinal

The **stomach** was significantly overdistended with chyme, fluid and gas. The pylorus was evident, and no overt obstruction was noted. Minor pyloric thickening was noted. However, pyloric dysfunction may be an

issue. No overt foreign body was present. Hyperperistalsis was noted in the small intestine. No pathology beyond the upper duodenum noted.

Pancreas

Diffuse hyperechoic changes were present in the area of the **pancreas**. The pancreatic remodeling was evident with multifocal to diffuse hyperechoic changes. These changes are consistent with fibrosis, amyloid, saponification of fat and may contain areas of low-grade chronic active inflammation especially if pain on imaging (+ Murphy sign) was present +/- focal subxyphoid palpation reveals pain response. No overt masses were noted. This is a moderate change.

ULTRASONOGRAPHIC FINDINGS

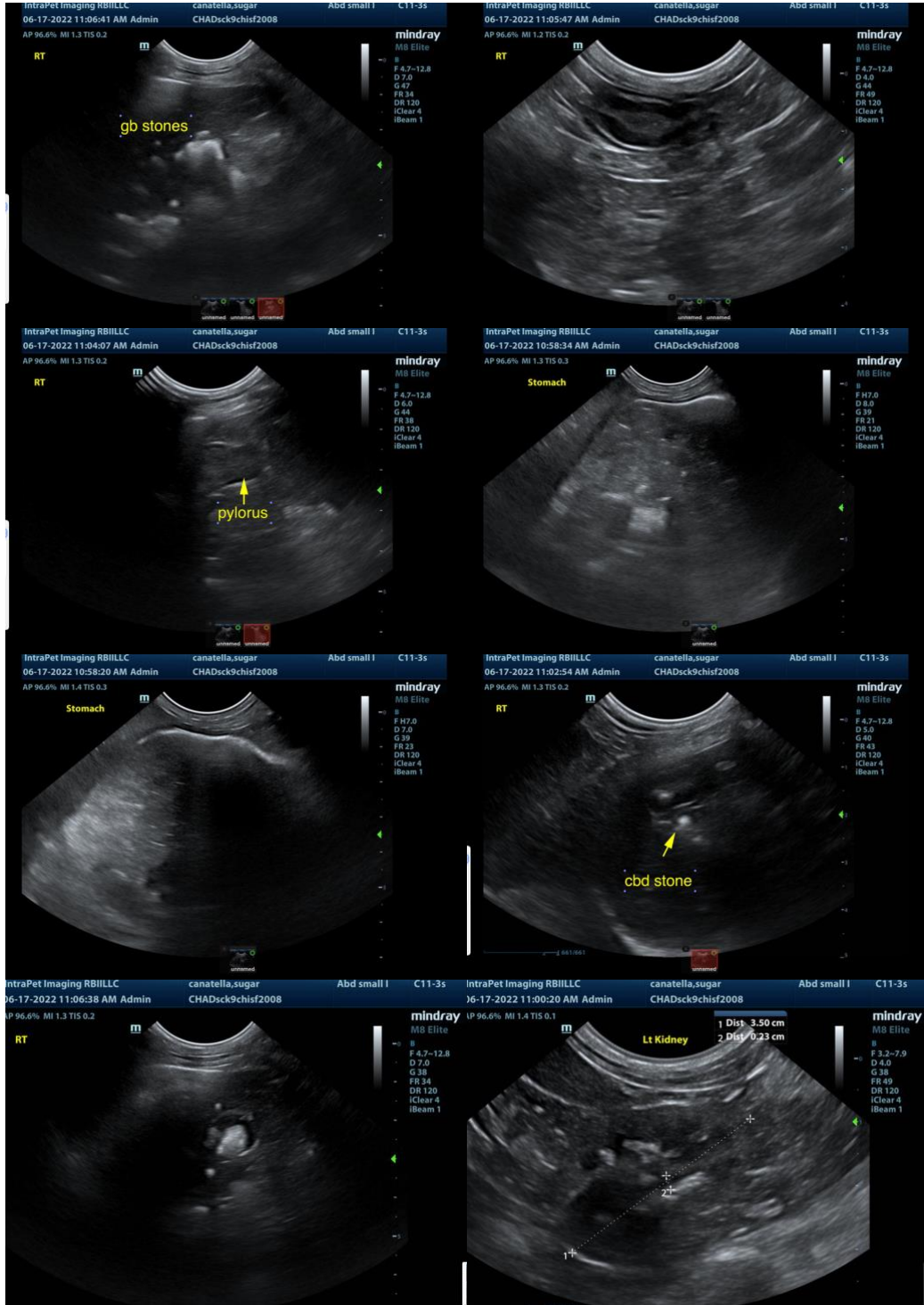
- Minor bladder sand
- Nonobstructive nephrolithiasis with moderate degenerative renal changes
- Pancreatic fibrosis
- Gallbladder and common bile duct calculus
- Delayed gastric outflow pattern. The cause of the delayed outflow is unclear.
- Kidneys, moderate degenerative changes with multifocal cortical medullary and pelvic calculi

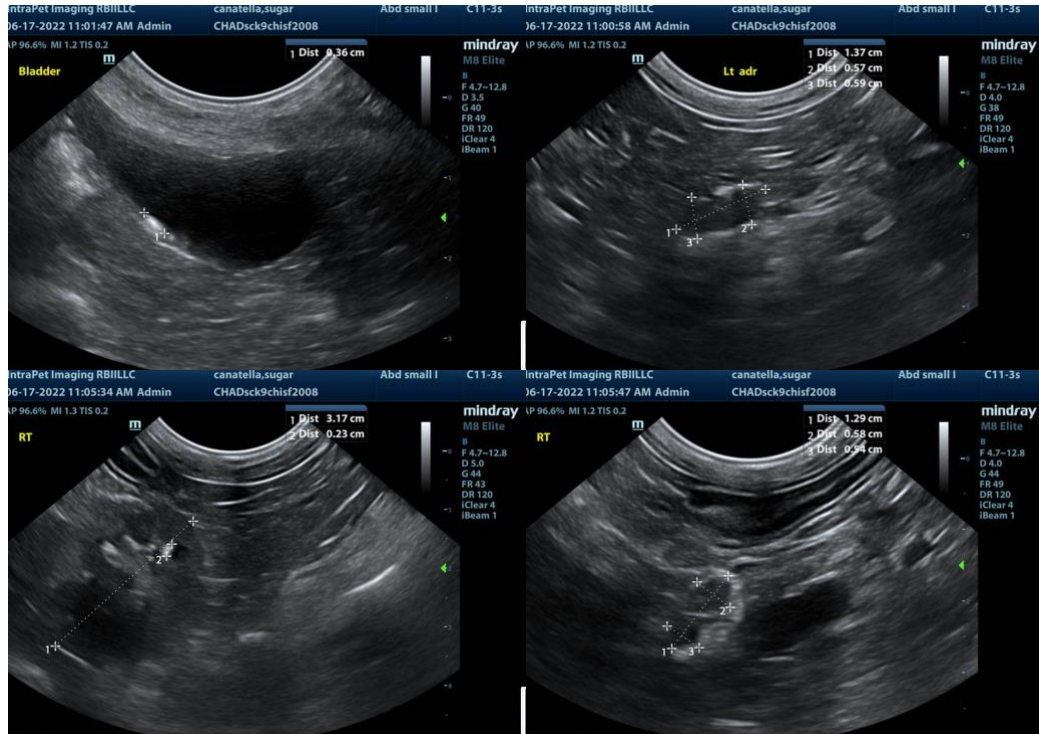
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the delayed out flow gastric pattern in this patient and the multiple biliary calculi, surgical intervention with manual assessment of the pylorus could be considered. Potential pyloroplasty or Bill Roth procedure may be appropriate. Cholecystotomy and common bile duct lavage would be appropriate. The urinary bladder sand should pass without difficulty, given that this is a female. 24-hour NPO, GI protectants and ursodiol therapy could be considered. Canned BID feedings with a helicobacter type protocol, such as the following, could be considered from a medical standpoint, if surgery is not an option. If medical approach is taken only, and the patient is stable, recheck sonogram in 10-14 days or earlier if elevations of liver enzymes occur, especially alkaline phosphatase or bilirubin, or if anorexia is a persistent issue. Otherwise, endoscopy is also an option to assess the pylorus and gastric mucosa. No evidence of neoplasia noted.

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/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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