

**DATE**

9/19/22

**PRESENTING CLINICAL SIGNS****PATIENT**

Bowser Basit

**SPECIES**

Canine

**BREED**

Pug

**SEX**

Neutered Male

**AGE**

3/9/11

**WEIGHT**

25.4 Pounds

**INTERPRETED BY**Eric Lindquist, DMV  
DABVP, Cert. IVUSS**HOSPITAL NAME**Animal Emergency  
Hospital**REFERRING VET**

Dr. Thompson

**INVOICE**

17373

History: Bowser is an 11 y/o MN Pug who presents pancreatitis - gallbladder mucocele dx previously - gags a lot - yesterday drank a lot of water, not his typical routine - did not want to eat treat - WD wet and dry diet BID, was not interested at first, 10 minutes later vomited up food - vomited twice more food - drank water and vomited it up - was seen at RDVM dx with pancreatitis - fasted yesterday, Saturday, evening started bland diet, ate and drank in evening - panting and trembling, lethargic, not able to give medication - is drinking, able to keep down, not eating - having trouble walking and trembling - usually does miss a meal - RDVM had some changes on BW - chem 17 yesterday, not interested at all - Medications: - 14 Units BID vetsulin half dose this am, 6/6pm - ursidiol BID - SQ fluids - Pepcid 10 mg 1/4 tablet BID - start marboquin and cerenia.

Current Medications: See above.

Lab Results: See attached.

Date of Previous IntraPet Ultrasound: 2/27/2020.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

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 were noted. Ureteral papillae were normal.

The **kidneys** revealed largely normal corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some mild 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. Trace pyelectasia was present in the right kidney. The right kidney was mildly swollen, measuring 5.61 cm. The left kidney measured 5.4 cm. Pinpoint mineralizations were noted in the left kidney. Slight pyelectasia was noted in the left kidney.

**Adrenal Glands**

The **right adrenal gland** was 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 1.37 cm x 0.56 cm at the caudal pole and 0.71 cm at the cranial pole.

The **left adrenal gland** was mildly swollen, measuring 2.25 cm x 0.81 cm at the cranial pole and 0.94 cm at the caudal pole. Pinpoint mineralizations were noted.

**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 were noted.

### ***Liver***

Some biliary mineralization was noted in the **liver**. Gallbladder mucocele is persistent. Persistent thickening with striating bile with some level of collapse, regional free fluid and peritonitis noted. The right pancreatic pathology enveloped the common bile duct for a region of approximately 3.15 cm. The common bile duct was largely not visible owing to the nebulous hyperechoic surrounding fat. Underlying common bile duct calculus may be present, yet not visible.

### ***Gastrointestinal***

The **stomach** and upper duodenum were empty yet tethered and enveloped by the pancreatic and mesenteric pathology secondary to inflamed gallbladder mucocele.

### ***Pancreas***

The **pancreas** revealed extensive mixed hypoechoic parenchymal changes in the right limb. The right pancreatic pathology enveloped the common bile duct for a region of approximately 3.15 cm. The right pancreatic pathology also enveloped the upper duodenum.

### ***Free Abdomen***

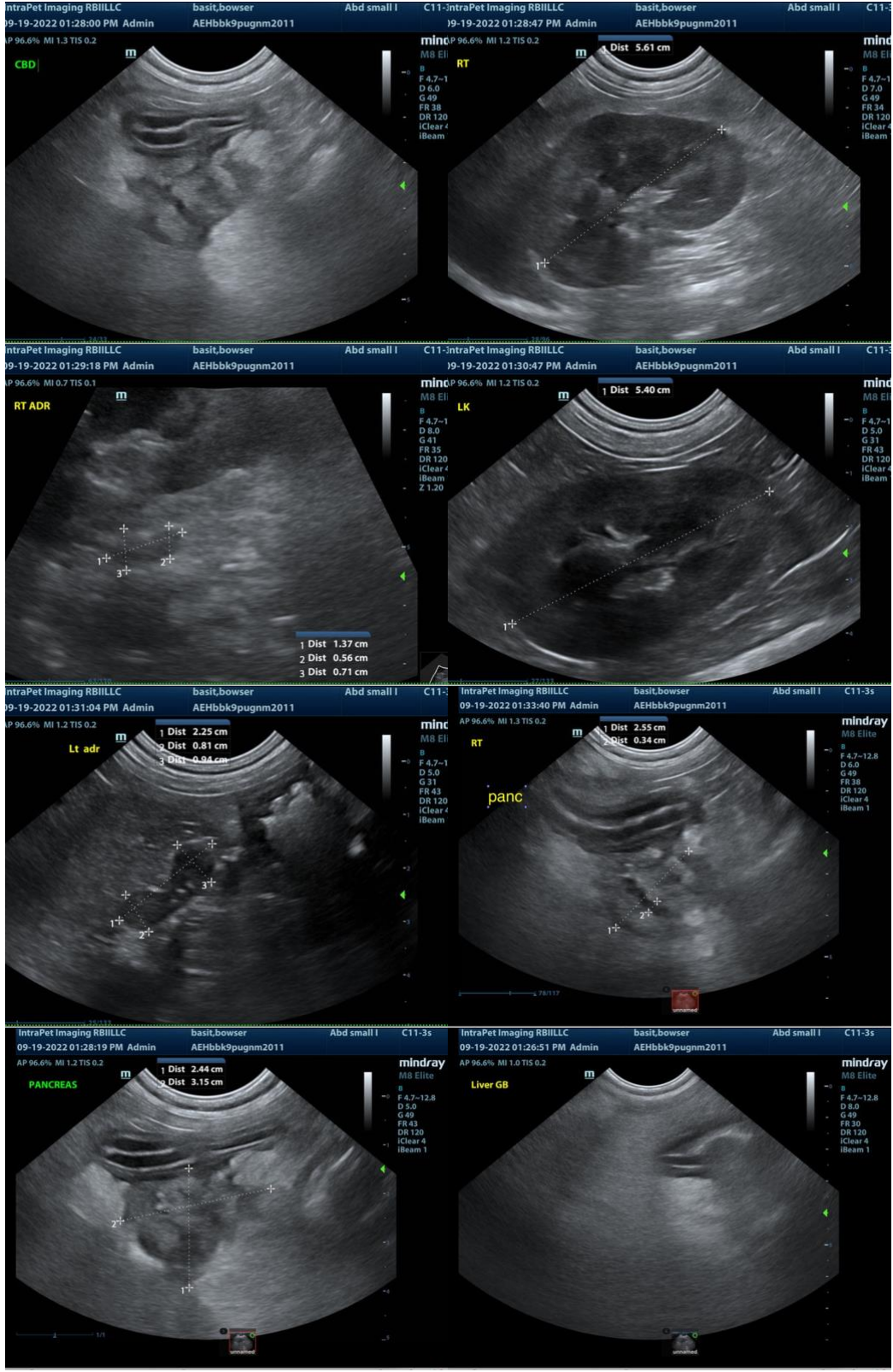
**Free fluid** was noted in the abdomen. Nebulous hyperechoic fat and mesentery were noted throughout the right cranial abdomen around the pylorus.

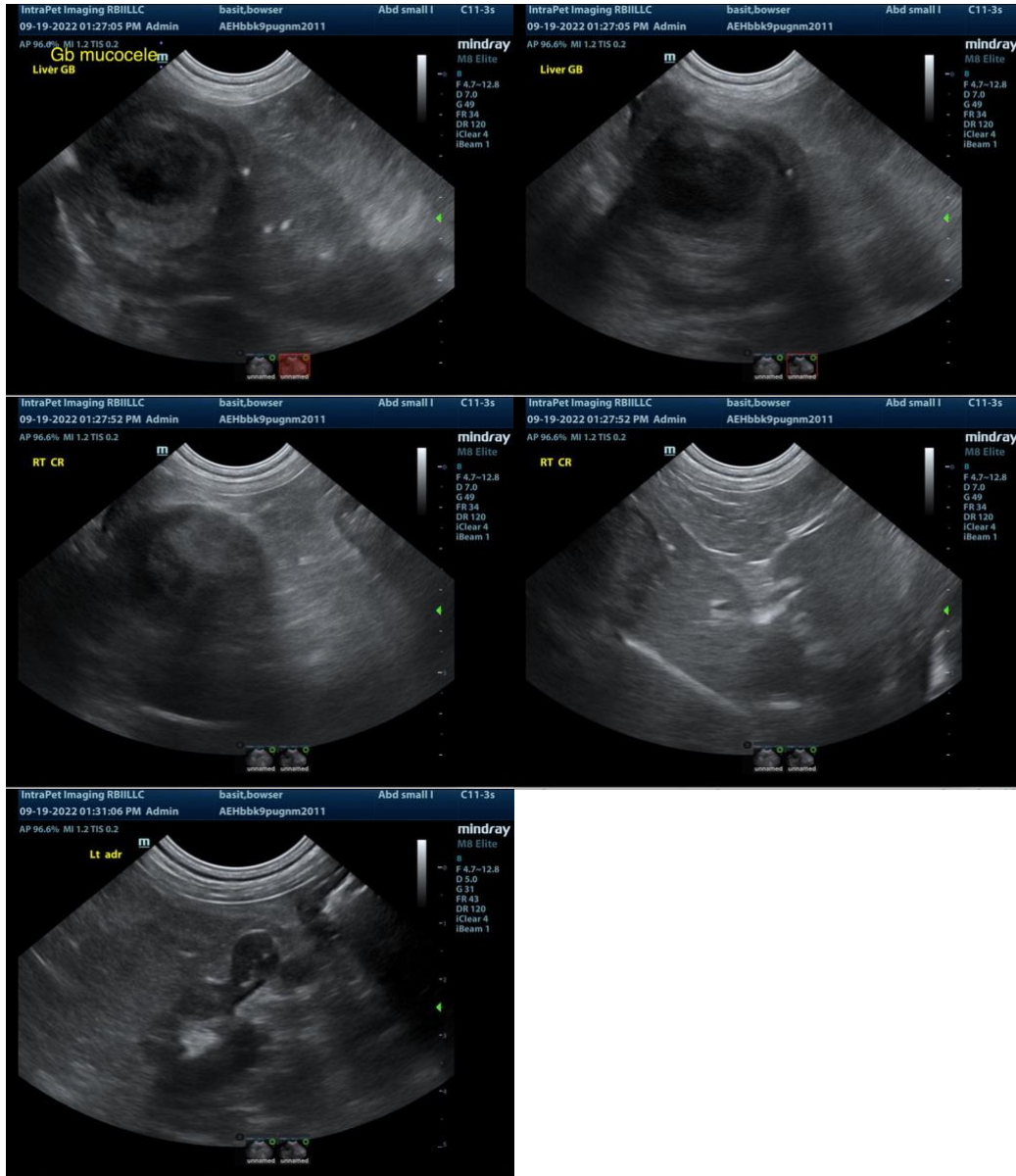
## **ULTRASONOGRAPHIC FINDINGS**

- Peritonitis
- Inflamed and likely perforated gallbladder mucocele
- Post hepatic obstructive pattern, possible underlying biliary calculi
- Extensive pancreatitis of the right limb
- Stomach and upper duodenum enveloped by right pancreatic and mesenteric pathology
- Enlarged and mineralized left adrenal gland, given the mineralization, underlying carcinoma cannot be ruled out. Hyperplasia and secondary dystrophic mineralization are possible.
- Swollen right kidney with age-related changes and pyelectasia
- Age-related left kidney changes with mineralization and pyelectasia

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

Immediate surgical intervention with expectations towards cholecystectomy, common bile duct lavage, debridement of adhesions in the pancreatic region and pyloric outflow are all indicated. Left adrenalectomy could be considered at the time of surgery, however, surgical intervention is essential in this patient. Very guarded prognosis. Coagulation panel +/- plasma transfusion would be appropriate.





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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