



## PATIENT PRESENTING CLINICAL SIGNS

**Teddy Beltran** History: Teddy had an ultrasound through Sonopath in March 2022. An emerging mucocele was noted at that time, along with pancreatitis. He presented vomiting 7/19/22 and is eating very little. Abdomen is distended and somewhat painful.

**SPECIES** Abnormal PE/Chem/CBC/UA Results: Abnormal snap cPL. All other values are pending.

Canine **ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

### BREED *Urinary System*

TerrierX The **urinary bladder** wall is normal in thickness and the mucosal surface is smooth. The bladder is distended. A scant amount of suspended echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. The cystourethral junction and visible portion of the proximal urethra are normal.

### SEX

The **prostate** is not definitively visualized due to its pelvic location.

Neutered Male

### AGE

The **left kidney** is normal size (3.62 cm in length); with a slightly irregular shape. The cortex is diffusely thickened. There is poor corticomedullary distinction. At least one small cortical cyst is seen. Moderate pyelectasia is present (0.48 cm in the transverse plane). There is no evidence of nephroliths or hydroureter. Renal vasculature is normal.

13 years

### WEIGHT

The **right kidney** is normal size (3.48 cm in length); with a slightly irregular shape. The cortex is diffusely thickened. There is poor corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths, or hydroureter. Renal vasculature is normal.

9.3 lbs

### *Adrenal Glands*

The **left adrenal gland** is borderline enlarged (0.54 cm at cranial pole) (0.58 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

## INTERPRETED BY

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The **right adrenal gland** is mildly enlarged (0.70 cm at cranial pole) (0.73 cm at caudal pole); with a normal shape. The parenchyma is slightly heterogenous with some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature appear normal.

## IMAGING PERFORMED BY

Velasco

### *Spleen*

The **spleen** is normal in size (0.82 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

## HOSPITAL NAME

Bethany Family PC

### *Liver*

The **liver** is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is slightly mottled in appearance. A 0.49 cystic lesion is observed on the left side. Vascular and biliary tracts are of normal volume with no evidence of congestion

## REFERRING VET

Velasco

The **gall bladder** is distended. The wall is normal in thickness. There is questionable loss of wall integrity. A large amount of aggregated, echogenic, suspended sludge, in a stellate pattern is observed within the lumen. The mesentery surrounding the gall bladder is hyperechoic and adhered to the wall. A small amount of free fluid is seen adjacent to gall bladder. The cystic and common bile ducts are normal/not seen.

## INVOICE

11236

### *Gastrointestinal*

The **gastric lumen** is moderately fluid distended and hypomotile. The gastric wall is borderline thickened with retention of the normal layering pattern. The pyloric outflow tract appears patent. The small intestinal

## DATE

7.21.22

lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

#### ***Pancreas***

The left limb of the **pancreas** is visible/prominent with minimal deviation from the normal peripheral contours. The parenchyma is slightly hypoechoic relative to surrounding omental fat and subtly mottled in appearance. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated.

#### ***Free Abdomen***

Trace free fluid is observed. The abdominal **lymph nodes** are normal/not visible.

### **ULTRASONOGRAPHIC FINDINGS**

#### **Primary Findings**

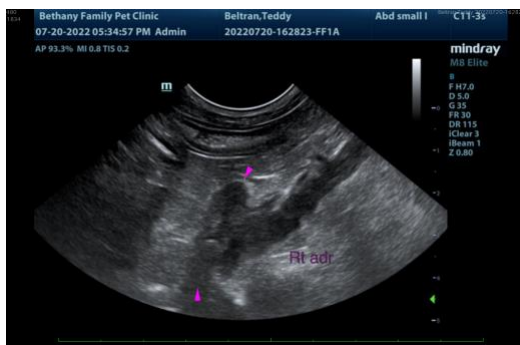
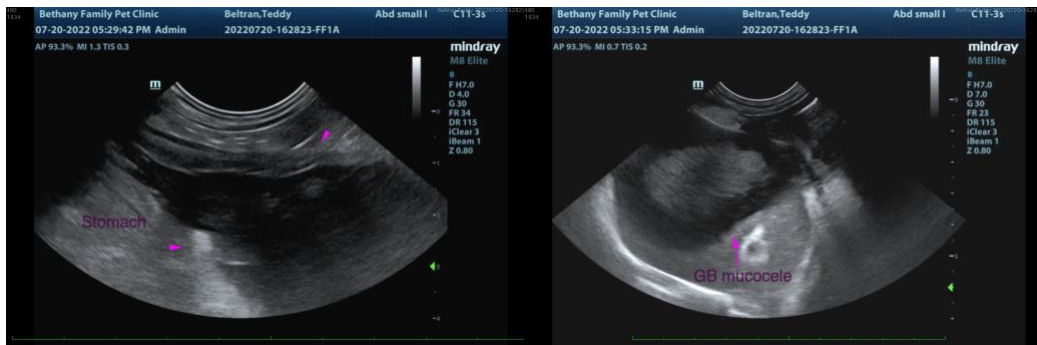
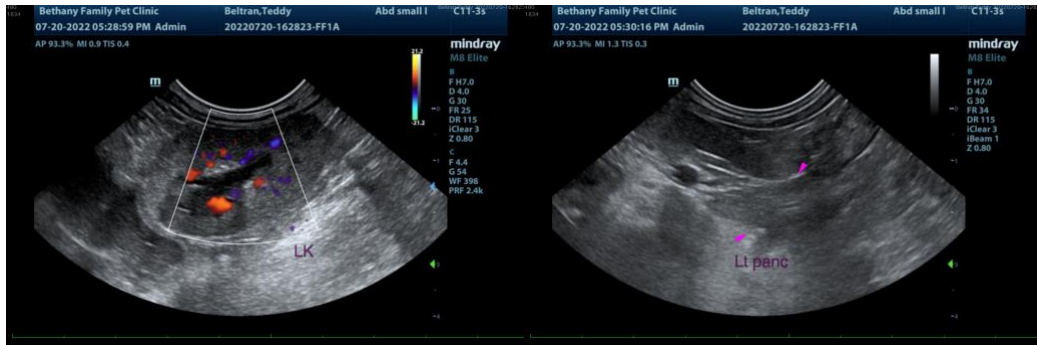
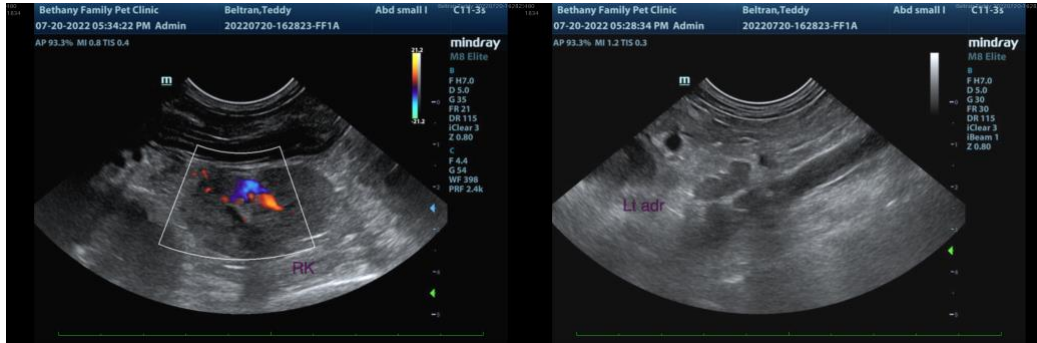
- The gall bladder changes are consistent with a fully formed mucocele. Adjacent peritonitis is present, raising concern for gall bladder rupture or impending rupture.
- Hepatic parenchymal changes are nonspecific and may be secondary inflammatory disease, hepatotoxicosis (i.e., copper), infiltrative neoplasia (less likely), +/- concurrent benign age-related change (i.e., regenerative nodular hyperplasia, vacuolar hepatopathy). Correlation with the patient's liver values is recommended.

#### **Secondary Findings**

- Age-related pancreatic remodeling. Mild chronic pancreatitis may also be present, particularly if the patient exhibits pain on cranial abdominal palpation.
- The bilateral renal changes are consistent with chronic interstitial nephrosis/nephritis with pyelectasia, more pronounced in the left kidney.
- Mild bilateral adrenomegaly
- Gastric ileus, likely secondary to cranial peritonitis. The gastric wall thickening is likely secondary to an inflammatory process, with a lower possibility of emerging neoplasia.

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

An emergency cholecystectomy is recommended due to the concern for potential gall bladder rupture. If surgery is pursued, referral to a board-certified surgeon is recommended due to the potential for perioperative complications. Thoracic radiographs and clotting times should be performed prior to anesthesia. In the meantime, supportive care and broad-spectrum antibiotic therapy is recommended.



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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