



**PATIENT PRESENTING CLINICAL SIGNS**

**Fred Zack**  
**SPECIES**  
Canine  
**BREED**  
Shih Tzu  
**SEX**  
Neutered Male  
**AGE**  
13 years  
**WEIGHT**  
5.7 kg

History: patient is diabetic, history of increased alkp, presented at ER for vomiting and after vomiting screamed, fell on side shaking and urinated on self (vagal episode?) normal after 20 minutes. exam: mild tachycardia, blind/cataracts, tender abdominal palpation, vomited 5 more times while waiting for exam currently hospitalized on IV fluids, Cerenia, pantoprazole, Denamarin, Buprenex.

Abnormal PE/Chem/CBC/UA Results: x-rays: abnormal gas pattern, dilated loops, chem: alt 584, alkp: over 2000, ggt 69, cholesterol 464, creat 0.4 cPL: normal

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is moderately distended with anechoic urine, and no luminal sediment is present. The ureteral papillae, trigone and pelvic urethra are of normal appearance, and the ureters are not visible (normal). No masses, calculi or mucosal irregularities are noted. Urethra visualized to 2.0 cm.

The prostate is not seen due to its intrapelvic location.

Both kidneys are hyperechoic and exhibit mildly decreased cortico-medullary differentiation. There is no evidence of nephrolithiasis, mineralization, pyelectasia or hydronephrosis. The proximal ureters are not visible (normal). The left kidney is 4.6 cm in length. The right kidney is 4.7 cm in length.

**Adrenal Glands**

The adrenal glands are both identified in their normal locations. They are normal in size and shape with appropriate parenchymal echogenicity and normal phrenic vasculature. The left adrenal gland height is 7.4 mm at the cranial pole and 6.6 mm at the caudal pole. The right adrenal gland height is 7.7 mm at the cranial pole and 5.2 mm at the caudal pole.

**Spleen**

The spleen is of appropriate size with a diffusely mineralized parenchyma, and a smooth, continuous capsular surface. The splenic vasculature is normal with no evidence of congestion or thrombosis, and blood flow through the splenic hilus appears normal.

**Liver**

The liver is diffusely hyperechoic and subjectively enlarged. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis.

The gallbladder is distended with striating bile. The wall is thickened up to 2.6 mm with evidence of regional inflammation. There is not evidence of gallbladder wall rupture. The cystic and common bile ducts are normal.

**Gastrointestinal**

The stomach is empty. The gastric wall is 4.1 mm with normal deviations due to rugal folds and exhibits appropriate wall layering. The pylorus is of normal appearance.

The visualized portions of the duodenum, jejunum, and ileum are of normal thickness with intact wall layering that exhibits the appropriate 1:3 muscularis to mucosa ratio. The duodenal wall measures 5.6 mm. The jejunal wall measures up to 3.9 mm. Intestinal motility appears normal.

The visible portions of the colon are of normal thickness, up to 1.3 mm, with intact wall layering. The ileocecal junction is visualized and appears normal.

**INTERPRETED BY**

Tam Mengine, DVM,  
DABVP (canine/feline  
practice)

**IMAGING PERFORMED BY**

Meghan Myers VMD

**HOSPITAL NAME**

Hershey AEC

**REFERRING VET**

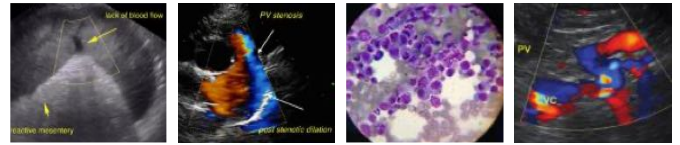
Dr. Rebecca Lupole

**INVOICE**

13961

**DATE**

8.5.23



**PATIENT** *Pancreas*

Fred Zack The areas of the limbs and body of the pancreas are isoechoic to the surrounding mesenteric fat, with normal capsular appearance. There is no evidence of peripancreatic inflammation. The pancreatic duct appears normal.

**SPECIES**

Canine *Free Abdomen*

**BREED** There is no evidence of free fluid within the peritoneal cavity. The omentum and intra-abdominal fat are of appropriate echogenicity. Enlarged abdominal lymph nodes are not observed. The aortic trifurcation has normal blood flow with no evidence of thrombosis.

Shih Tzu

**SEX**

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

Neutered Male

- Mature gallbladder mucocele

**AGE**

**Secondary Findings**

13 years

**WEIGHT**

5.7 kg

- Reactive hepatopathy
- Mild chronic renal changes
- Diffusely mineralized spleen, which is an incidental finding in patients with endocrine disease such as diabetes.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**IMAGING PERFORMED BY**

The presence of a mature biliary mucocele, with thickened gallbladder wall is likely the cause of the noted clinical signs. Three-view chest radiographs would be recommended, and if normal, emergency cholecystectomy would be recommended.

Meghan Myers VMD

**HOSPITAL NAME**

The changes in the kidneys are consistent with chronic renal disease. Findings should be correlated with laboratory values, IRIS staging and clinical signs.

Hershey AEC

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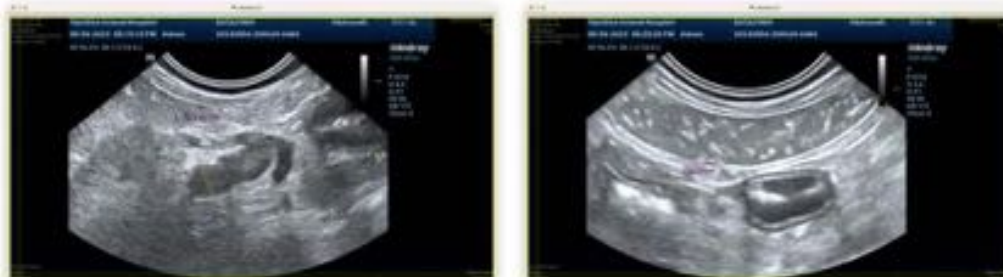
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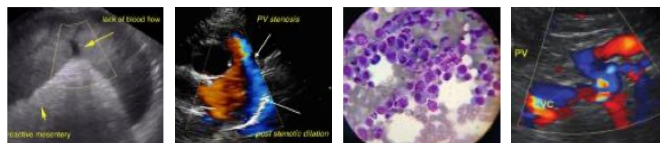
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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