



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT** Zero Finn  
**SPECIES** Canine  
**BREED** Shih Tzu

History: Patient has history of Sunday night having stopped eating, hasn't eaten or pooped since then per owner. Monday had fever of 105F at rDVM, BW sent out at that time but no results yet. Started on NSAID and antibiotic, no improvement seen. Abdomen tense on PE tonight, fever of 104.1F on presentation today, heart sounds muffled. BW and rads performed so far - attached results below.

Abnormal PE/Chem/CBC/UA Results: CBC: WBC 1.59, NEU 0.73, LYM 0.58, EOS 0.03 CHEM: globulin 3.9, cholesterol 394, ALP 592 EPOC: pO2 66.3, cSO2 95.9, pCO2 16.3, bicarb 14.5, TCO2 14.3, pH 7.555, BE ECF -7.8, anion gap 23 CPLi: positive/abnormal

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**SEX** *Urinary System*

**SEX** Neutered Male  
 Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

**AGE**

9 Years

The area of the prostate is examined without evident prostatic pathology.

Left kidney is normal is size (4.5 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**WEIGHT**

19 Pounds

Right kidney is normal is size (4.2 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**INTERPRETED BY**

Beth Johnson, DVM  
 DACVIM

*Adrenal Glands*

The adrenal glands are unable to be fully visualized in these images.

*Spleen*

**IMAGING PERFORMED BY**

Dr. Isermann

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

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Animal Emergency  
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*Liver*

Liver is subjectively enlarged (swollen contour). Mild parenchymal remodeling with diffusely mildly coarse architecture and increased portal markings is present. No focal nodules or masses are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

**REFERRING VET**

Dr. Van Nieuwal

Gallbladder is moderately distended with anechoic bile as well as moderate suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

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*Gastrointestinal*

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

**DATE**

2/7/23



**PATIENT**

Zero Finn

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

**SPECIES**

Canine

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

**Pancreas**

**BREED**

Shih Tzu

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

**Free Abdomen**

**SEX**

Neutered Male

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

**ULTRASONOGRAPHIC FINDINGS Primary Findings**

**AGE**

9 Years

- Hypoechoic hepatomegaly-This appearance is consistent with an acute hepatopathy or acute cholangiohepatitis. Infiltrative neoplasia (round cell neoplasia) should also be considered.
- Gallbladder debris (canine) - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

**WEIGHT**

19 Pounds

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The significance of this patient mild hepatobiliary changes is unknown and should be interpreted in combination with laboratory changes, cranial abdominal pain, etc., that support a hepatopathy or cholangitis as contributing factors to patients clinical signs.

**IMAGING PERFORMED BY**

Dr. Isermann

A fine needle aspirate of the liver could be considered if patients coagulation status is appropriate. However, given this patients reported marked leukopenia, differentials for the fever and leukopenia include sepsis without an identifiable abdominal source present, viral disease or potentially an autoimmune or infiltrative bone marrow disease, etc.

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Further diagnostics could include comprehensive infectious disease testing and/or potentially bone marrow cytology.

**REFERRING VET**

Dr. Van Nieuwal

In the meantime, supportive/symptomatic medical management is recommended, including broad spectrum four quadrant coverage antibiotics, fluid support (if indicated), and gastrointestinal support, including antiemetics, gastroprotectants, appetite stimulants (if necessary), pain management (if indicated), etc.

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**REFERRING VET**

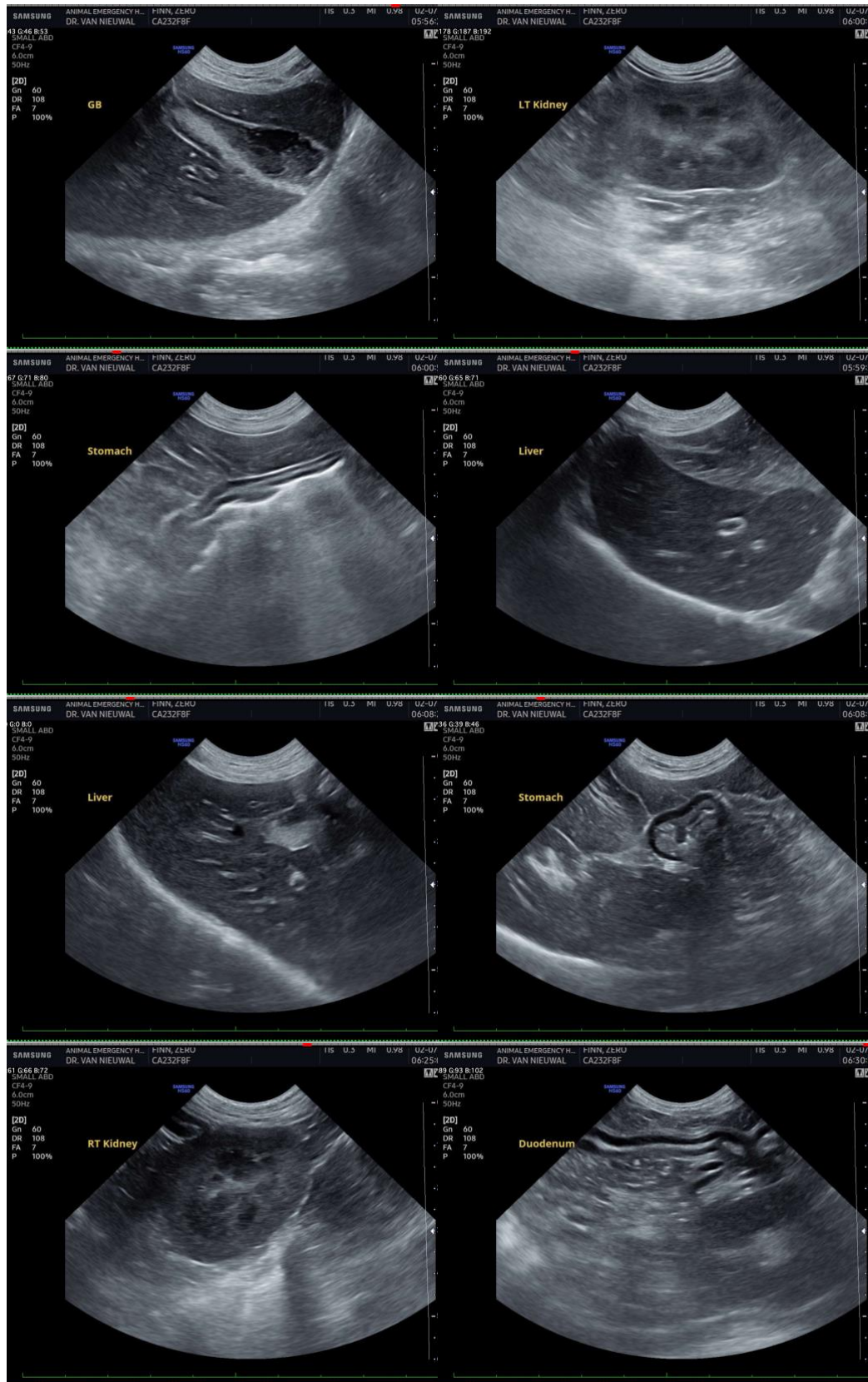
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Beth Johnson, DVM DACVIM**

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