

**PATIENT**

William Ericson

**PRESENTING CLINICAL SIGNS**

**SPECIES**

Canine

**BREED**

Shih Tzu

**SEX**

Neutered Male

Echo done last week (MAGgie read it out) but due to stress, waited on AUS. Sedation: Alfaxalone and oxygen flowby. ~ William lives with both cardiac disease and renal disease. Recent addition of new dog to home, eating something other than renal food has made it hard to keep William on his Rx food. O concerned about progression of both conditions. O also says that his coughing has slowly, progressively gotten worse. MEDS: ~Cardalis 20mg/2.5mg - 1/2 tab SID Amlodipine 2.5mg -1/4 tab SID in pm Vetmedin 1.25 - 1 tab q8 hrs Atenolol 25mg - 1/4 tab q12 hrs Clindamycin 25mg - 1 tab BID x 7D q6 weeks~

Abnormal PE/Chem/CBC/UA Results: BP 130 systolic LABS:~SDMA=27(14), BUN=50(31), Phos=6.9(6.1), K=5.8(5.4), Na:K ratio=26(28), ALP=443(160), Amylase=1532(1469), Lipae=421(250), proBNP=5980(900). UPC=202~ Recommended AUS to further evaluate new BW findings. RADS: ~Took chest films last week - globoid heart, pronounced pulmonary vasculature, tracheal elevation, peri hilar lymphadenopathy?~

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**AGE**

17 Years 7 Months

**Urinary System**

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

**WEIGHT**

8.8 Pounds

The visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

**INTERPRETED BY**

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

The left kidney has a normal shape and size (3.05 cm) with pyelectasia at 0.20 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**IMAGING BY**

Loetitia Saint-Jacques,  
LVT

The right kidney has a normal shape and size (3.57 cm) with pyelectasia at 0.24 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**HOSPITAL NAME**

Loetitia Saint-Jacques

**Adrenal Glands**

The left adrenal gland is large in size measuring 0.97 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**REFERRING VET**

Dr. Sara Kalivoda

The right adrenal gland is large in size measuring 0.93 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

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**Spleen**

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There is a small hypoechoic lesion visualized within the parenchyma measuring 0.59 cm.

**DATE**

7/7/22



## PATIENT

William Ericson

### **Liver**

## SPECIES

Canine

The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are numerous ill-defined hypoechoic nodules throughout the parenchyma, two of which measure 0.91 cm and 0.60 cm in diameter.

## BREED

Shih Tzu

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

## SEX

Neutered Male

### **Gastrointestinal**

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

## AGE

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The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measured 0.34 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

## WEIGHT

8.8 Pounds

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

## INTERPRETED BY

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

### **Pancreas**

The pancreas is large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with moderate pancreatitis.

## IMAGING BY

Loetitia Saint-Jacques,  
LVT

### **Free Abdomen**

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

## HOSPITAL NAME

Loetitia Saint-Jacques

### **Other**

A brief view of the heart was submitted. No significant pericardial effusion was seen.

## ULTRASONOGRAPHIC FINDINGS

## REFERRING VET

Dr. Sara Kalivoda

- Bilateral adrenomegaly – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.

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- Decreased corticomedullary distinction in both kidneys with bilateral pyelectasia –

## DATE

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Portland Animal Wellness Sonography, Inc.

## PATIENT

William Ericson

Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

## SPECIES

Canine

- Hypoechoic splenic nodule – There is a non-cavitated, hypoechoic splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

## BREED

Shih Tzu

- Hypoechoic, prominent pancreas surrounded by hyperechoic mesentery – The pancreatic changes are most consistent with mild/moderate pancreatitis/pancreatic inflammation. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving.

## SEX

Neutered Male

## AGE

17 Years 7 Months

- Large, heterogeneous liver with ill-defined hypoechoic nodules – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

## WEIGHT

8.8 Pounds

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No focal large mass lesions are observed. As expected, both kidneys have decreased corticomedullary distinction, and there is pyelectasia evident. Recommend a current blood pressure, urinalysis and culture to rule out possible pyelonephritis. Additionally, there is a very small hypoechoic nodule in the spleen. Options moving forward would include continued monitoring or a fine needle aspirate.

## INTERPRETED BY

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

Both adrenal glands appear large. This could be consistent with pituitary dependent hyperadrenocorticism. If there are no symptoms of this, I would just continue to monitor the situation. If symptoms are present, and that is concerning, you could consider an ACTH stimulation test to look for evidence of a cortisol excess (interpretation of the test may be challenging if the pet has significant concurrent illness).

## IMAGING BY

Loetitia Saint-Jacques,  
LVT

## HOSPITAL NAME

Loetitia Saint-Jacques

The liver is large and heterogeneous with some ill-defined nodules. The appearance of these nodules trends towards a more benign appearance, although an underlying neoplastic lesion cannot be ruled out as a possibility.

## REFERRING VET

Dr. Sara Kalivoda

The pancreas is large, hypoechoic and prominent. These changes are most consistent with active mild to moderate pancreatitis, but this can be variable. If no signs of pancreatitis are present, this could also represent remodeling due to previous episodes, etc. Correlate with a quantitative PLI level and consider symptomatic treatment to try and determine if this is beneficial.

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Dr. Sara Kalivoda

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**PATIENT**

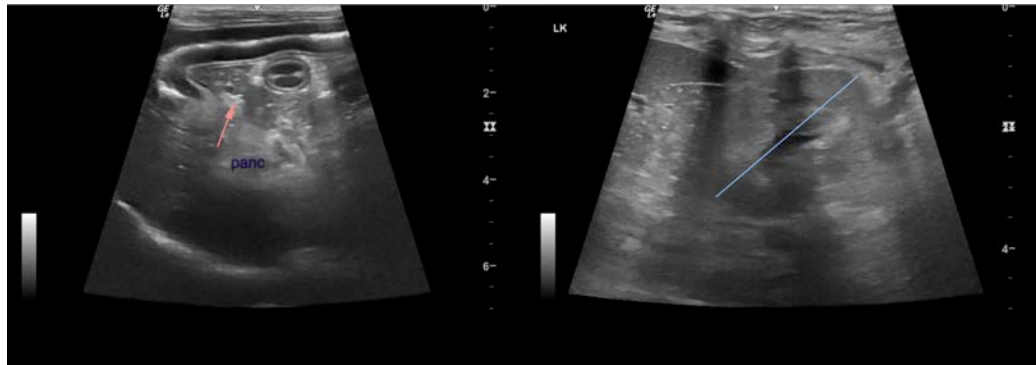
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**SEX**

Neutered Male

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.

**AGE**

17 Years 7 Months

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.

**WEIGHT**

8.8 Pounds

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)  
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