



## PATIENT

Cord Danson

## PRESENTING CLINICAL SIGNS

## SPECIES

Canine

P presented for AUS for PLN and elevated liver enzymes. P has Hx of newly elevated ALP and GGT. Looking for enlarged adreanal glands and possible changes to the liver and kidneys.  
Abnormal PE/Chem/CBC/UA Results: BP 85mmHg with oscillometric machine Administered 0.03cc Dexdomitor and 0.05cc Torbugesic IV R cephalic vein.

## BREED

Mini Aus Shepherd

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### 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.

## SEX

Neutered Male

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.

## AGE

14 Years

The left kidney has a normal shape and size (6.1 cm) with numerous pinpoint, non-obstructive nephroliths and mineralization in the area of the cortex. 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, infarcts or hydroureter. Renal vasculature is normal.

## WEIGHT

35 Pounds

The right kidney has a normal shape and size (5.48 cm) with numerous pinpoint non-obstructive nephroliths and a small cortical cyst measuring 0.50 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, infarcts or hydroureter. Renal vasculature is normal.

## INTERPRETED BY

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

### Adrenal Glands

The left adrenal gland is normal/borderline large in size measuring 0.56 cm at the cranial pole, 0.90 cm at the caudal pole, and 2.96 cm in length. 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.

## IMAGING BY

Loetitia Saint-Jacques,  
LVT

The right adrenal gland is normal/borderline large in size measuring 0.86 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.

## HOSPITAL NAME

MountRose AH

## REFERRING VET

Dr. Lopez

### 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. No focal parenchymal abnormalities are visualized.

### Liver

## INVOICE

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

37476

## DATE

5/5/22



Portable Animal Wellness Sonography, Inc.

 IMAGING PERFORMED BY  
 pawsonography@gmail.com 530-786-8340

## PATIENT

Cord Danson

## SPECIES

Canine

## BREED

Mini Aus Shepherd

## SEX

Neutered Male

## AGE

14 Years

## WEIGHT

35 Pounds

## INTERPRETED BY

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

## IMAGING BY

 Loetitia Saint-Jacques,  
 LVT

## HOSPITAL NAME

MountRose AH

## REFERRING VET

Dr. Lopez

## INVOICE

37476

## DATE

5/5/22

portions of the vasculature and biliary tract appear normal. There are too numerous to count ill-defined, hyperechoic and hypoechoic lesions visualized throughout the hepatic parenchyma.

These smaller hyperechoic lesions vary in size from 0.35-0.55 cm. There is a large hyperechoic mass effect visualized on the left side of the liver measuring 5.82 cm x 6.27 cm, and hypoechoic lesions measuring between 0.50-1.4 cm. Some of these lesions deviate the hepatic margins.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

### **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.

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 0.41 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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.

### **Pancreas**

The pancreas is prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

### **Free Abdomen**

There is scant free fluid visualized between liver lobes. There is no evidence of a significant mesenteric lymphadenopathy. A mesenteric lymph node is visualized measuring 0.50 cm. The omentum is of normal echogenicity.

### **Other**

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

## PRIMARY FINDINGS

- Large, irregular, heterogeneous liver with too numerous to count, ill-defined, hyper- and hypoechoic nodules. Additionally, there are larger lesions, with a larger hyperechoic mass effect visualized – These findings trend towards a benign process due to the number and apparent chronicity, but unfortunately a benign process cannot be definitively determined.
- Borderline bilateral adrenomegaly – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism),



## PATIENT

Cord Danson

bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.

## SPECIES

Canine

- Decreased corticomedullary distinction in both kidneys with numerous pinpoint, non-obstructive nephroliths – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.

## BREED

Mini Aus Shepherd

## SECONDARY FINDINGS

- Prominent, mottled pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Moderate gallbladder debris – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

## SEX

Neutered Male

## AGE

14 Years

The liver is diffusely nodular, and some of these nodules are large enough to start to deform the hepatic margins and create distinct mass effects. The appearance of these lesions trends towards a benign appearance, but an underlying neoplastic process cannot be ruled out. Recommend a fine needle aspirate of the large hyperechoic liver mass. Options moving forward would be continued monitoring of these lesions with a liver function test and a fine needle aspirate, or you could consider a contrast CT scan to further evaluate for possible surgical removal and biopsy.

## WEIGHT

35 Pounds

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

## INTERPRETED BY

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

The changes observed in the kidneys are consistent with chronic progressive renal disease. Recommend urinalysis, culture and blood pressure evaluation as a baseline.

The presence of the liver nodules could cause enough inflammation to be exacerbating a protein losing nephropathy. It is unknown if the removal of the larger masses would help with this condition.

## IMAGING BY

Loetitia Saint-Jacques,  
LVT

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

## HOSPITAL NAME

MountRose AH



## REFERRING VET

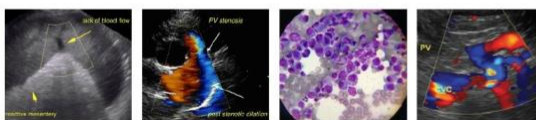
Dr. Lopez

## INVOICE

37476

## DATE

5/5/22



Portland Animal Veterinary Sonography, Inc.

IMAGING PERFORMED BY  
pawsonography@gmail.com 530-786-8340

**PATIENT**

Cord Danson

**SPECIES**

Canine

**BREED**

Mini Aus Shepherd

**SEX**

Neutered Male

**AGE**

14 Years

**WEIGHT**

35 Pounds

**INTERPRETED BY**

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

**IMAGING BY**

Loetitia Saint-Jacques,  
LVT

**HOSPITAL NAME**

MountRose AH

**REFERRING VET**

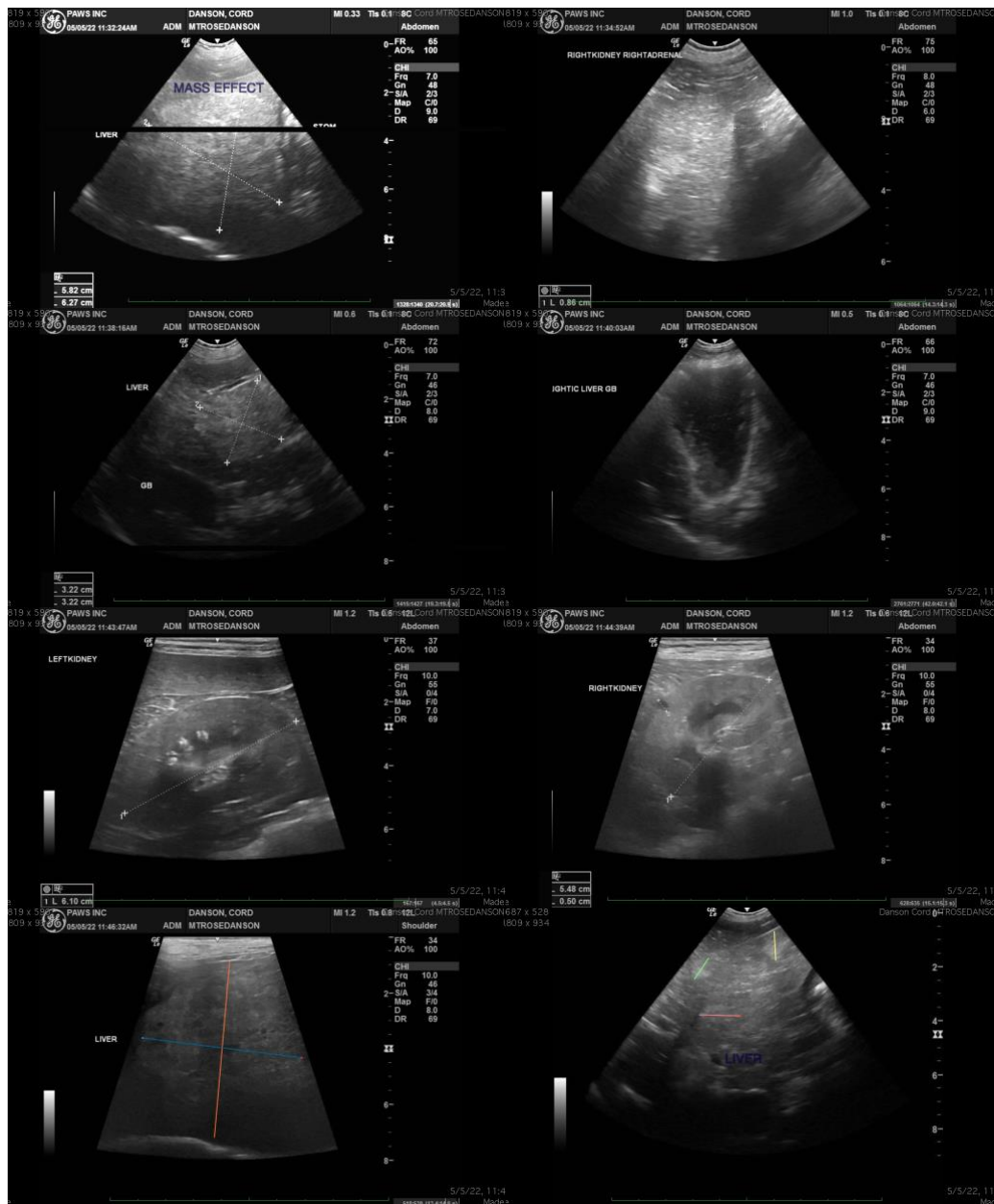
Dr. Lopez

**INVOICE**

37476

**DATE**

5/5/22



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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)  
kathleen.sennello@sonopa