



## PATIENT PRESENTING CLINICAL SIGNS

Dixie Armenante History: episode of weakness, vomiting, decreased appetite.  
Abnormal PE/Chem/CBC/UA Results: phos low 4.7, Ca low 3.1, ALT 244, GGT 24. USPG 1.050; UA normal

## SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Canine *Urinary System*

The **urinary bladder** and visible portion of the pelvic urethra are normal for the degree of luminal distension. The urine is anechoic with no evidence of debris. Cystic calculi and discrete masses are not observed. The region of the trigone and the visible portion of the proximal urethra are normal.

### BREED

Shih Tzu

The **left kidney** is normal size (3.83 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. A thin, hyperechoic medullary band is observed at the corticomedullary junction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

### SEX

Spayed Female

The **right kidney** is normal size (5.24 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. A thin, hyperechoic medullary band is observed at the corticomedullary junction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

### AGE

18 mos

### *Adrenal Glands*

The **left adrenal gland** is normal size (0.31 cm at cranial pole) (0.35 cm at caudal pole) (1.63 cm in length); 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.

### WEIGHT

11 lbs

The **right adrenal gland** is normal size (1.77 cm at cranial pole) (0.43 cm at caudal pole) (1.46 cm in length); 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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ACVIM (*Small Animal  
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## IMAGING PERFORMED BY

Diane McFadden

## HOSPITAL NAME

AH of Sussex Co

### *Spleen*

The **spleen** is normal in size (0.81 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.

### *Liver*

The **liver** is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative, or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.

## REFERRING VET

Dr. Scairpon

The **gall bladder** lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal/not seen.

### *Gastrointestinal*

The **stomach and intestine** are free of stasis and exhibit normal peristaltic activity. The gastric lumen is minimally distended with fluid. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal 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.

## INVOICE

11288

## DATE

7.29.22

### **Pancreas**

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

### **Free Abdomen**

The **peritoneal cavity** is normal. There is no evidence of inflammation or effusion. A few prominent, mesenteric **lymph nodes** are visualized, the largest measuring 1.35 cm in length. The nodes are normal in size and echogenicity.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- The pancreatic changes may be a normal variant for this patient or could be consistent with mild, chronic pancreatitis. Correlation with clinical findings is recommended.
- The lymph node changes are most consistent with reactive lymphadenitis or lymphoid hyperplasia.

### **Secondary Findings**

- The medullary band seen in both kidneys may be a normal variant for this patient or may represent subclinical renal disease (less likely).

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

Fecal evaluation for ova and Giardia

Consider a cPLI +/- a full GI Panel, including serum cobalamin and folate, TLI and PLI.

Given the elevated ALT, consider pre-and postprandial serum bile acids to assess for hepatic dysfunction.

Given the hypocalcemia, an ionized calcium +/- PTH level should be considered.

Thoracic radiographs (three-view) can be considered to assess for occult aspiration pneumonia.

Supportive care for acute gastroenteritis/mild pancreatitis is recommended. If clinical signs do not improve within 48-72 hours of supportive care, further work-up may be warranted.





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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