

**PATIENT PRESENTING CLINICAL SIGNS**

Livvie Lawall Episodic vomiting with evidence of abdominal pain/discomfort and decreased appetite. Occasional diarrhea.

**SPECIES** Unremarkable CBC/Chemistry Panel

Canine **ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED** *Urinary System*

Pug Mix The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

**SEX** FS The area of the aortic trifurcation was free of pathology.

**AGE** 2013 Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 4.1 cm in length. The right kidney measured 4.1 cm in length.

**WEIGHT** 16.7 *Adrenal Glands*

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.3 cm length x 0.49 cm width at the caudal pole. The right adrenal gland was mildly prominent in size exhibiting subtle asymmetrical contour and mild heterogeneous parenchyma with no evidence of mineralization, measuring 2.1 cm length x 0.79 cm width at the caudal pole.

**INTERPRETED BY**

R. McKenzie Daniel,  
 DVM, DABVP  
 (Canine and Feline)

*Spleen*

**IMAGING PERFORMED BY**  
 Rebekah Jakum, CVT  
 ARDMS/RVT

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

**HOSPITAL NAME**

Alburtis AH

*Liver/ Gallbladder*

**REFERRING VET**

Smith

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

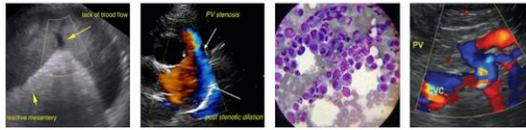
**INVOICE**

14713

*Gastrointestinal*

**DATE**  
 8/25/22

The stomach presented intact yet mildly prominent wall layering most notable in the area of the mid gastric body, antrum, and pylorus with minor retained anechoic pyloric fluid. The pylorus wall width measured 0.48 cm. The gastric body wall width by comparison measured 0.30 cm.



**PATIENT** Livvie Lawall  
The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material. The duodenum wall measured 0.41 cm width. The jejunum wall measured 0.31 cm width.

**SPECIES** Normal visible colon wall layers were present with subjective semi-formed to soft fecal matter.

**Canine**  
*Pancreas*

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

**BREED**

Pug Mix  
*Free Abdomen*

No overt lymphadenopathy or peritoneal effusion was present.

**SEX**

FS

**ULTRASONOGRAPHIC FINDINGS**

**AGE**

2013

- Mildly prominent to irregular right adrenal gland - nonspecific
- Mild gastritis pattern with minor retained anechoic fluid
- Overtly normal small bowel and colon, semi-formed to soft fecal matter present In colon
- Heterogeneous pancreas

**WEIGHT**

16.7

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Aside from sonographically mild gastritis pattern with the possibility of mild gastric hypomotility, no overt evidence of additional gastroenterocolic mural pathology. At times, the small intestinal presentation does not correlate with clinical history of intermittent to recurrent gastrointestinal signs. Aside from gastritis, considerations in this case may include; dietary intolerance /food hypersensitivity, occult parasitism, dysbiosis, IBD, or low-grade to chronic pancreatitis, both of which may present as sonographically normal. A GI panel to include PLI/TLI/Cobalamin/Folate is recommended.

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DVM, DABVP  
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Empirically, a limited antigen or hydrolyzed diet trial with potential long term dietary therapy, prophylactic deworming (Panacur 50 mg/kg SID x 5 consecutive days with repeat protocol in 3 weeks even if fecal testing is negative), high colony count probiotic (Provable or Visbiome), antibiotic trial and as needed gastrointestinal support with assessment of clinical response may prove beneficial. Intestinal biopsies may be indicated if GI signs continue despite empirical therapy.

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
ARDMS/RVT

**HOSPITAL NAME**

Alburtis AH

The mildly prominent to irregular right adrenal gland is nonspecific and of unclear clinical significance and may indicate age-related variant, minor adenomatous change, or minor being hyperplasia without overt evidence of neoplastic criteria. Sonographic monitoring of the right adrenal gland for evidence of progressive enlargement is recommended.

**REFERRING VET**

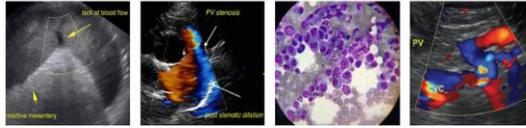
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**PATIENT**

Livvie Lawall

**SPECIES**

Canine

**BREED**

Pug Mix

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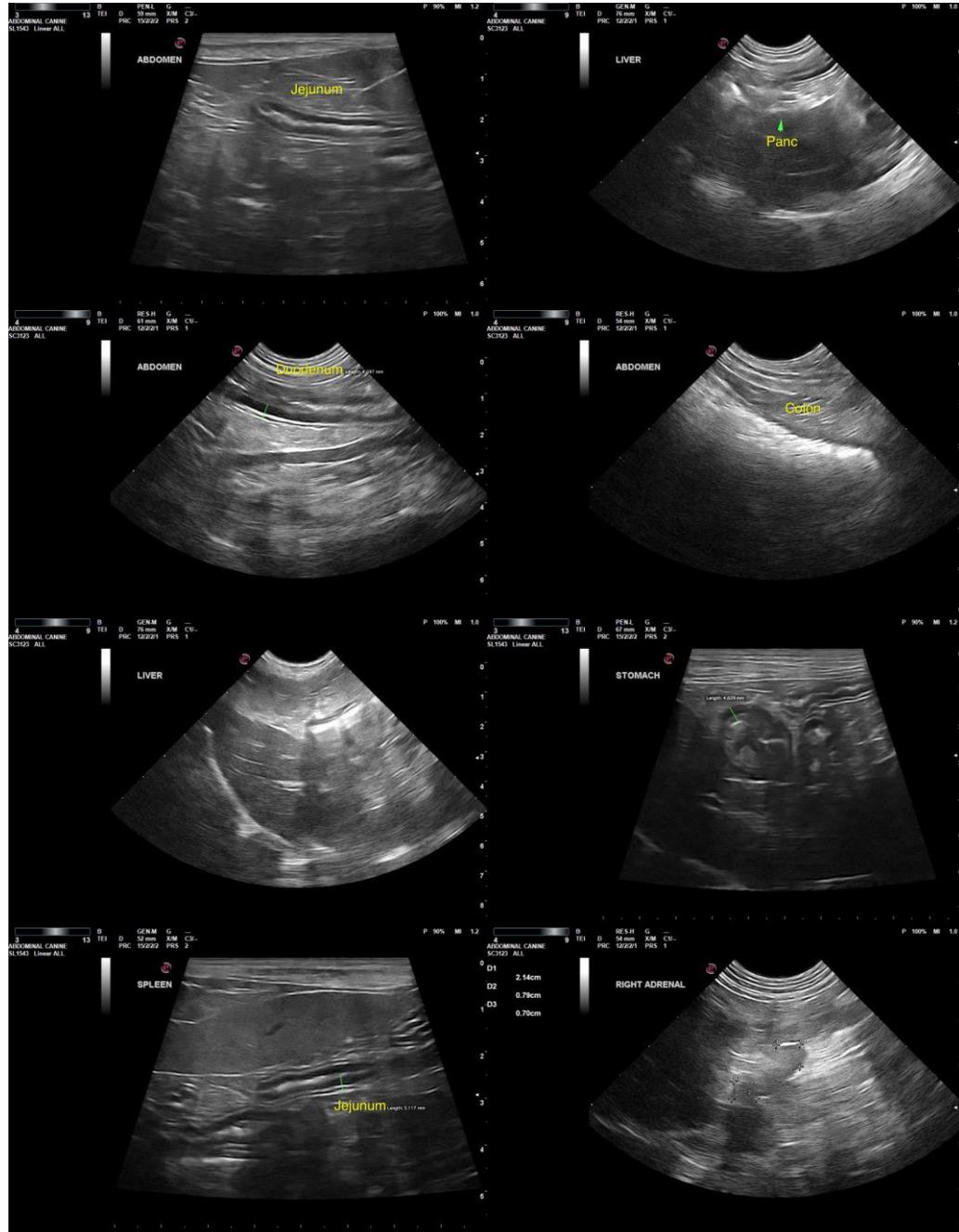
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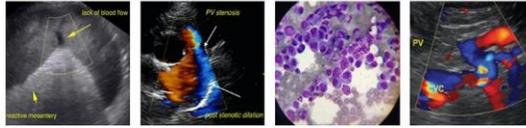
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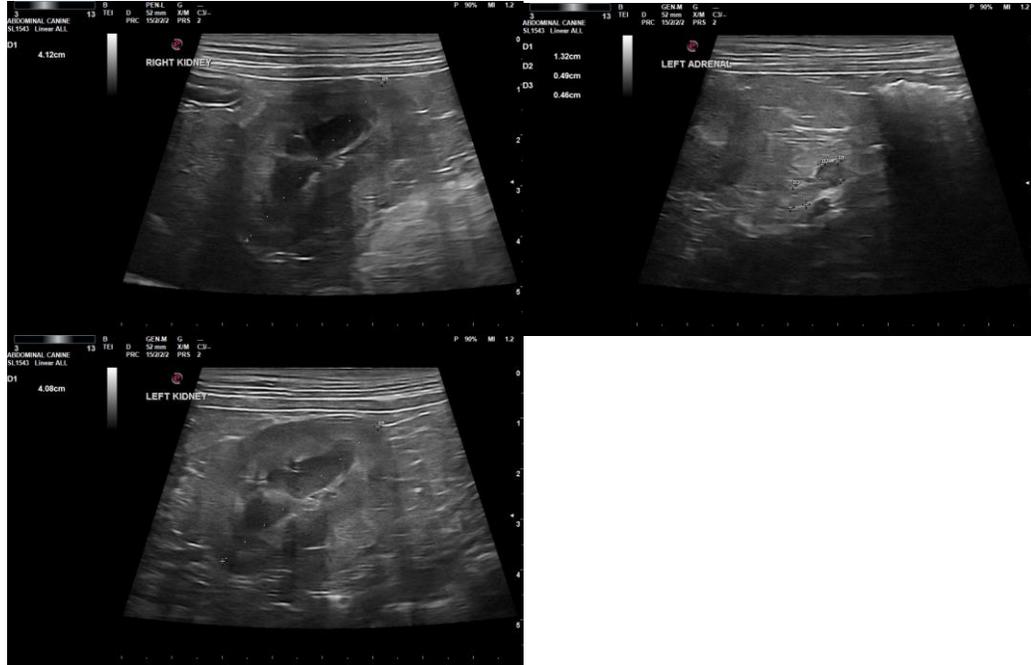
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)**

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