



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT** Callie Monk  
**SPECIES** Canine  
 Patient was camping with family and became unwell on drive home - vomiting, marked lethargy. No diarrhea. Anorexia. No known exposure to toxins. UTD on vaccines. Did have a mouse in her mouth at one point but didn't ingest it.

**BREED** Chihuahua X  
**SEX** Spayed Female  
**AGE** 6 Years  
**WEIGHT** 5.7 kg  
 Abnormal PE/Chem/CBC/UA Results: Azotemia creatinine 748 with hyperphosphatemia at 4.64. Thrombocytopenia at 18. Marked elevations in ALT, ALP and bilirubin. Bilirubin at 473. Marked amylase and lipase elevation.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is moderately 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.

The right kidney is normal in size (4.51 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.

The left kidney is normal in size (4.06 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.

**Adrenal Glands**

The right adrenal gland is normal in size (0.35 cm at the cranial pole and 0.37 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.41 cm at the cranial pole and 0.47 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**Spleen**

The 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.

**Liver**

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is mildly overdistended with a moderate amount of non-dependent, mildly aggregated/inspissated sludge. Hypo to anechoic cystic areas are noted between the gallbladder sludge and luminal wall. The wall is otherwise smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Sarah Barthelemy

**HOSPITAL NAME**

Alpine 24 Hour Pet Hospital

**REFERRING VET**

Dr. Monida

**INVOICE**

43876

**DATE**

7/16/23



**PATIENT**

***Gastrointestinal***

Callie Monk

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is moderately to markedly overdistended with fluid, as well as echogenic nonshadowing luminal contents and gas consistent with normal ingesta/chyme. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

**SPECIES**

Canine

**BREED**

Chihuahua X

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). 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.

**SEX**

Spayed Female

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

**AGE**

6 Years

***Pancreas***

The observed pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and irregular in shape with a swollen undulating contour. Enhanced hyperechoic ill-defined surrounding fat is noted. The changes in the pancreas are most prominent in the right limb.

**WEIGHT**

5.7 kg

***Free Abdomen***

There is a trace amount of anechoic free fluid in the cranial abdomen.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

There is no apparent lymphadenopathy noted in these images.

**ULTRASONOGRAPHIC FINDINGS**

- Acute pancreatitis suspected, primarily in the right limb, with a trace amount of anechoic free fluid in the cranial abdomen.
- Emerging mucocele – 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. The non-dependent nature of this sludge combined with the cystic areas are suggestive, however, of possible emerging cystic mucosal hyperplasia or early gallbladder mucocele.
- The marked gastric distention is most consistent with an ileus secondary to the local inflammation caused potentially by pancreatitis versus cholangitis versus other, and an obstruction cannot be definitively ruled out, but there is no visible evidence of one in these images.

**IMAGING PERFORMED BY**

Dr. Sarah Barthelemy

**HOSPITAL NAME**

Alpine 24 Hour Pet Hospital

**REFERRING VET**

Dr. Monida

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**INVOICE**

43876

Given this patient's reported azotemia, if not recently evaluated, a urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

**DATE**

7/16/23

Testing for Leptospirosis is recommended if not recently evaluated.

A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.



**PATIENT**

Callie Monk

**SPECIES**

Canine

**BREED**

Chihuahua X

**SEX**

Spayed Female

**AGE**

6 Years

**WEIGHT**

5.7 kg

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Sarah Barthelemy

**HOSPITAL NAME**

Alpine 24 Hour Pet  
Hospital

**REFERRING VET**

Dr. Monida

**INVOICE**

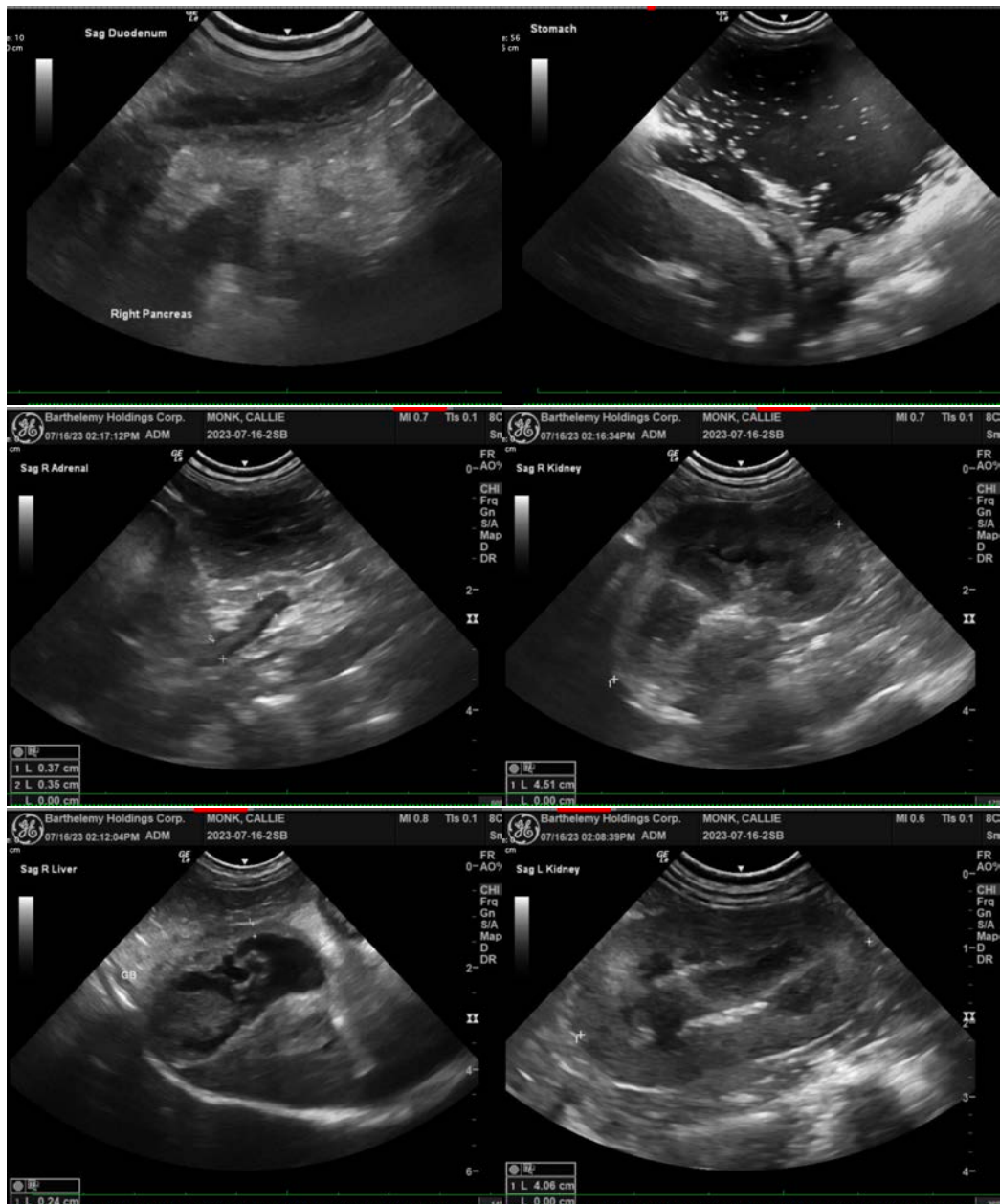
43876

**DATE**

7/16/23

In the meantime, supportive/symptomatic management of acute pancreatitis +/- cholangitis/cholangiohepatitis is recommended in the form of antiemetics, gastroprotectants, appetite stimulants or nutritional support as needed, pain management if clinically indicated, broad-spectrum antibiotics, fluid therapy, hepatic nutraceuticals, etc.

Close monitoring is recommended, and if clinical and laboratory improvement is not noted and/or progression develops, reassessment of the gallbladder may be warranted to help determine whether ultimately a cholecystectomy +/- concurrent liver biopsy will be required.





**PATIENT**

Callie Monk

**SPECIES**

Canine

**BREED**

Chihuahua X

**SEX**

Spayed Female

**AGE**

6 Years

**WEIGHT**

5.7 kg

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING  
PERFORMED BY**

Dr. Sarah Barthelemy

**HOSPITAL NAME**

Alpine 24 Hour Pet  
Hospital

**REFERRING VET**

Dr. Monida

**INVOICE**

43876

**DATE**

7/16/23



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.

**Beth Johnson, DVM, DACVIM**  
info@sonopath.com