



**PATIENT PRESENTING CLINICAL SIGNS**

Kirby Whipple History: AUS for elevated liver values  
Abnormal PE/Chem/CBC/UA Results: ALT 467 AST 116 ALP 147

**SPECIES**

Feline

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

**BREED**

Ragdoll

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended. A scant amount of suspended echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

**SEX**

Neutered Male

The left kidney is normal size (3.75 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

**AGE**

12 Years

The right kidney is normal size (4.51 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with poor corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**WEIGHT**

15 Pounds

*Adrenal Glands*

The left adrenal gland is mildly enlarged (0.55 cm width) with a slightly rounded shape and normal parenchyma. Surrounding vasculature appears normal.

**INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM  
(Small Animal Internal  
Medicine)

The right adrenal gland is mildly enlarged (0.62 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

**IMAGING PERFORMED BY**

Loetitia Saint-Jacques, RVT

*Spleen*

The spleen is normal to slightly prominent in size with a subtly swollen medial contour. Numerous varying sized hyperechoic nodules are observed throughout the organ, the largest measuring 2.25 cm in diameter, some of which cause slight capsular expansion. Splenic vasculature is normal with no evidence of thrombosis.

**HOSPITAL NAME**

*Liver*

The liver is subjectively prominent in size with slightly irregular peripheral contours. A >4 cm slightly septated cystic, heterogeneous lesion is observed on the right side. The lesion causes capsular expansion. The remaining parenchyma is isoechoic relative to the spleen and homogeneous in appearance. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of suspended echogenic debris is observed within the lumen. The cystic and common bile ducts are normal.

**REFERRING VET**

Dr. Pearson

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*Gastrointestinal*

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. 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. No obstructive disease is noted.

**DATE**

5/2/2022



**PATIENT** *Pancreas*

Kirby Whipple The region of the left limb is isoechoic relative to surrounding omental fat. No obvious abnormalities are seen in this region. See *Other*.

**SPECIES** *Free Abdomen*

Feline The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

**BREED** *Other*

Ragdoll A 0.47 cm anechoic cyst is observed in the right cranial quadrant.

**SEX**

Neutered Male

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings:**

**AGE**

12 Years

- The large cystic hepatic lesion likely represents a biliary cystadenoma or less likely, a biliary cystadenocarcinoma. The diffuse hepatic parenchymal changes could be consistent with an inflammatory hepatopathy (i.e., lymphoplasmacytic hepatitis, bacterial cholangiohepatitis), hepatic lipidosis or less likely, infiltrative neoplasia (i.e., lymphoma).

**WEIGHT**

15 Pounds

**Secondary Findings:**

- Bilateral chronic age-related renal changes.
- The bilateral adrenomegaly may be a normal variant for this patient or may be secondary to stress or hyperplastic change.
- The hyperechoic splenic nodules trend toward the benign (i.e., myelolipomas, lipogranulomas) with a lower possibility of emerging neoplasia.
- The origin of the cystic lesion in the right cranial quadrant is unclear but may be arising from the right limb of the pancreas, liver, lymph node, mesentery, other. It likely represents a benign process.

**INTERPRETED BY**

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**HOSPITAL NAME**

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**REFERRING VET**

Dr. Pearson

- Pre- and post-prandial serum bile acids can be considered to assess hepatic function. Ultimately, hepatic tissue sampling (i.e., fine needle aspirate or surgical biopsy) can be considered. Surgical biopsies with aerobic and anaerobic bile cultures are preferred as they are more likely to yield a definitive diagnosis. If surgery is pursued, removal of the cystic lesion with submission for histopathology can also be considered. Given the patient's age, thoracic radiographs (three-view) are recommended prior to anesthesia.
- If the patient's daily caloric intake is reduced, consider nutritional support (i.e., via temporary feeding tube) to help prevent/treat hepatic lipidosis.

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**PATIENT**

Kirby Whipple

**SPECIES**

Feline

**BREED**

Ragdoll

**SEX**

Neutered Male

**AGE**

12 Years

**WEIGHT**

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**IMAGING PERFORMED BY**

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**HOSPITAL NAME**

**REFERRING VET**

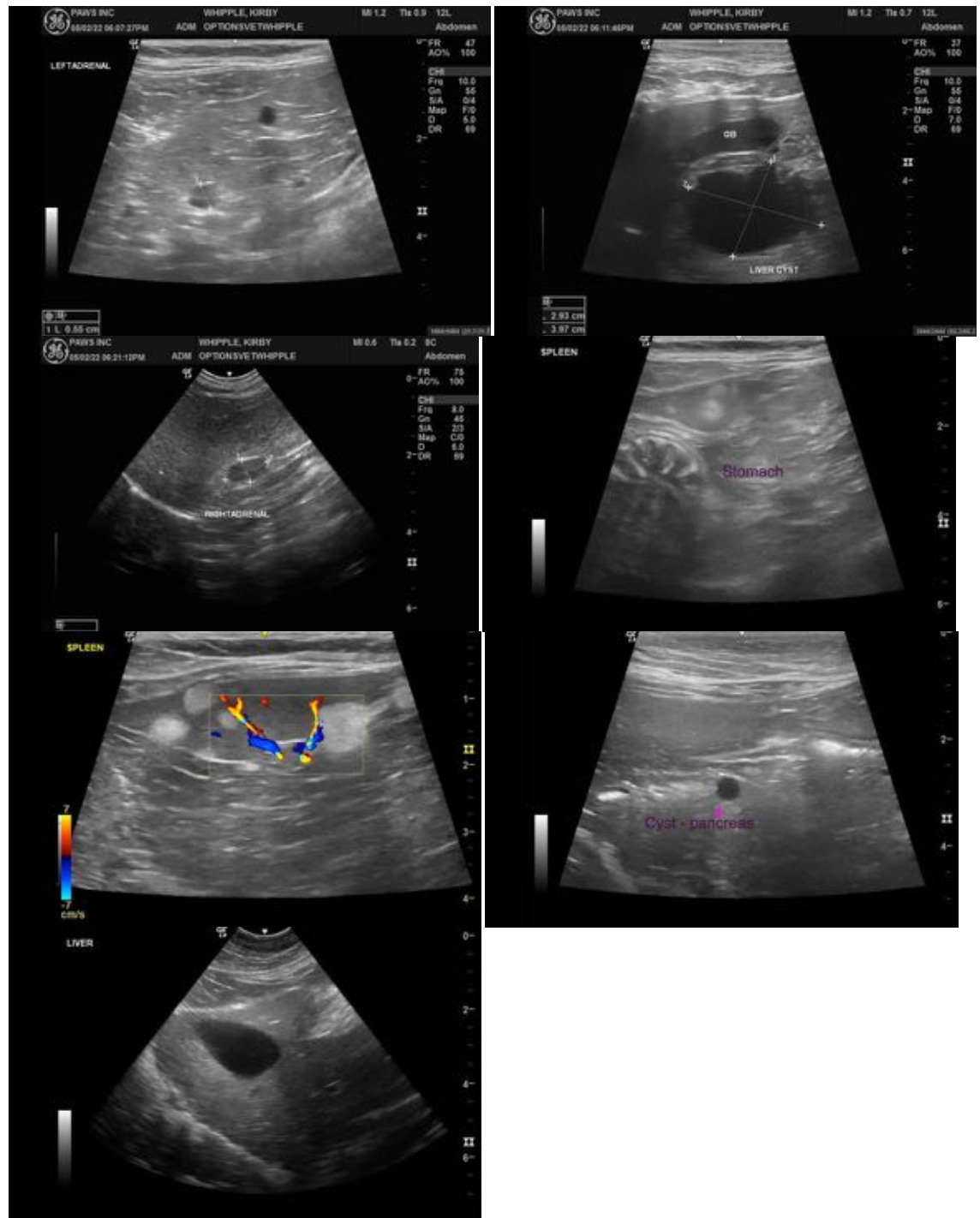
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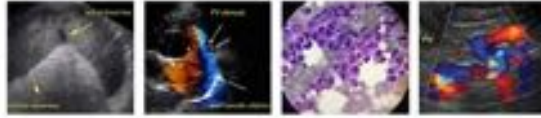
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I



**PATIENT**

can be of any further assistance, please contact me.

Kirby Whipple

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

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**SPECIES**

Feline

**BREED**

Ragdoll

**SEX**

Neutered Male

**AGE**

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