



**PATIENT**

Lucy Halbert

**PRESENTING CLINICAL SIGNS**

History: Previous ultrasound performed on 5/23/22, patient here today for recheck ultrasound.  
Current meds: Ursodiol 200mgs 1 a.m., ½ p.m., was on Denamarin but owner did not refill med.

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

**BREED**

Beagle mix

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 1-2 cm, are normal.

**SEX**

Female, spayed

The left kidney is normal size (6.21 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

**AGE**

14 Yrs.

The right kidney is normal size (6.20 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

**WEIGHT**

*Adrenal Glands*

**INTERPRETED BY**

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

The left adrenal gland is mildly enlarged (0.85 cm at cranial pole) (1.12 cm at caudal pole) (2.86 cm in length) with normal shape and smooth peripheral contours. The parenchyma is mildly heterogeneous with some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is mildly enlarged (1.12 cm at cranial pole) (0.89 cm at caudal pole) (2.35 cm in length) with a normal shape and smooth peripheral contours. A 1.06 x 0.63 cm, irregular hyperechoic nodule is observed at the cranial pole. The glandular echogenicity and detail at the caudal pole are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**IMAGING PERFORMED BY**

Kelly Vazquez, CVT

*Spleen*

The spleen is normal in size (2.00 cm in width at the level of the hilus) with a normal capsular contour. The parenchyma is slightly mottled in appearance. No focal lesions are observed. Splenic vasculature is normal.

**HOSPITAL NAME**

Brenda King VS

*Liver*

The liver is subjectively prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic to the spleen and slightly mottled in appearance. An approximately 1.62 x 1.10 cm irregular, isoechoic, vascular nodule appears to be arising from hepatic parenchyma and is compressing +/- invading into the gallbladder. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is distended. The wall is normal to mildly thickened (up to 0.27 cm), hyperechoic and irregular. The lumen contains a large amount of aggregated echogenic suspended sludge in a stellate pattern. The cystic and common bile ducts are normal/not seen. The mesentery effacing the serosal surface is mildly hyperechoic.

**REFERRING VET**

Dr. Brenda King

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*Gastrointestinal*

**DATE**

7/12/22



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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.

**SPECIES**

Canine

**Pancreas**

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely hyperechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

**BREED**

Beagle mix

**SEX**

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**Free Abdomen**

There is no evidence of free fluid. The abdominal lymph nodes are normal/not visible.

**AGE**

14 Yrs.

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings:**

- The gallbladder changes are consistent with a fully formed mucocele. The wall thickening is suggestive of cholecystitis. Mild adjacent peritonitis is present.
- The hepatic nodule (previously observed) is similar in size compared to the previous sonogram and appears to be compressing +/- invading into the gallbladder wall. The diffuse hepatic parenchymal changes are non-specific and could be secondary to a benign process (i.e., regenerative nodular hyperplasia, vacuolar hepatopathy). Alternatively, other hepatopathies are possible. Correlation with the patient's liver values is recommended.

**Secondary Findings:**

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The splenic parenchyma changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis or splenitis with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).
- Mild bilateral adrenomegaly. The right adrenal nodule trends toward the benign (i.e., nodular hyperplasia) with a lower possibility of an emerging tumor.
- Bilateral chronic non-specific, age-related renal changes.

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Dr. Brenda King

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- Consider referral to a board-certified surgeon for an abdominal exploratory, cholecystectomy and removal of the hepatic nodule with submission for histopathology.

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- In the meantime, continue Ursodiol therapy as previously directed. Broad-spectrum antibiotics (for cholecystitis) may also be warranted, depending on the patient's bloodwork and clinical status.

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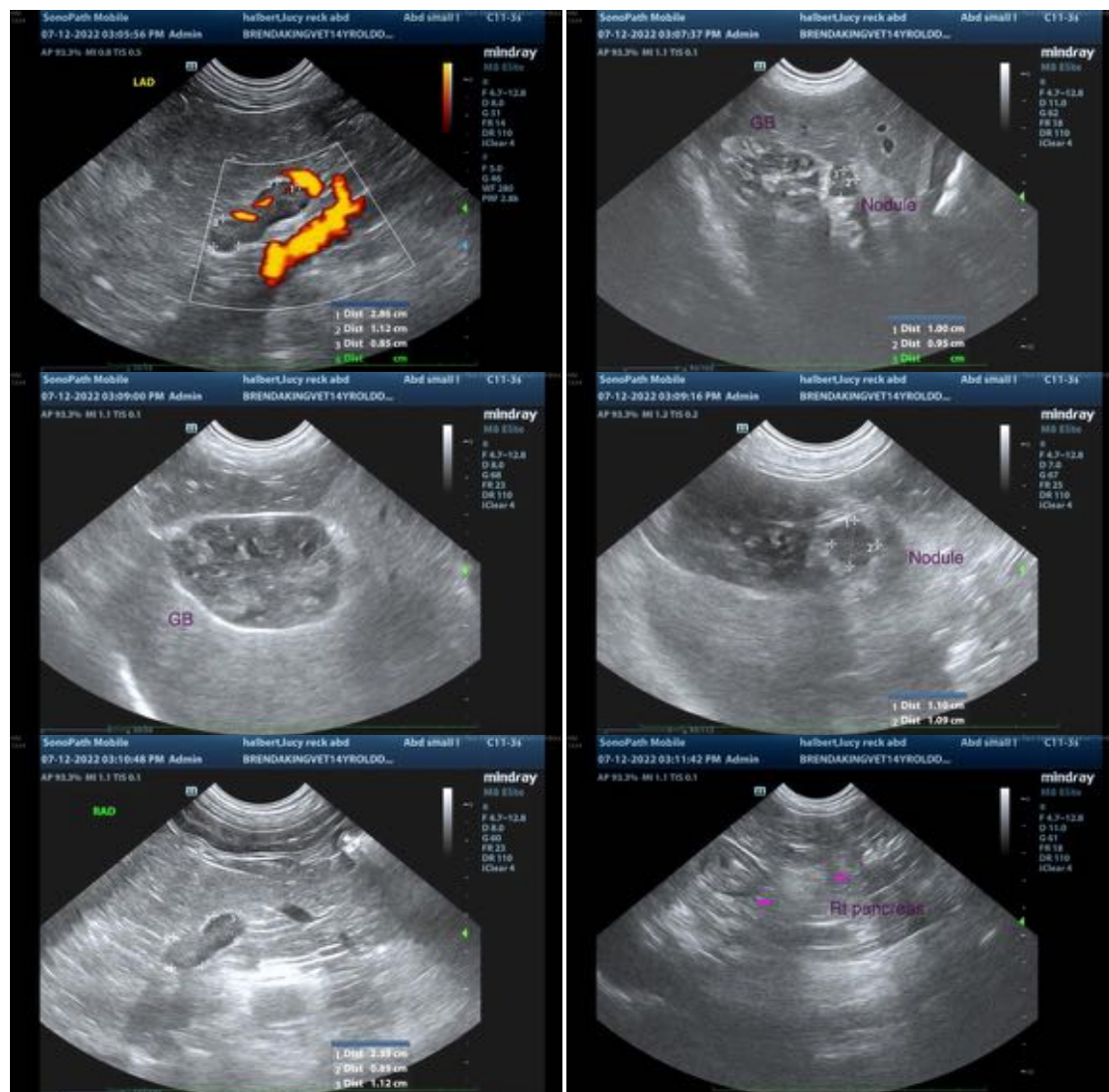
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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