

**PATIENT PRESENTING CLINICAL SIGNS**

Buster Paulling Chronically elevated liver enzymes with no improvement with antibiotics.

**SPECIES**

Canine

**BREED**

Beagle

**SEX**

Male, neutered

**AGE**

13 Yrs. 1 month

**WEIGHT**

27.8 lbs.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is mildly to moderately distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (1.03 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal size (5.80 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (5.70 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. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

*Adrenal Glands*

The left adrenal gland is normal size (0.61 cm at cranial pole) (0.60 cm at caudal pole); 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.

The right adrenal gland is normal size (1.17 cm at cranial pole) (0.57 cm at caudal pole); 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.

*Spleen*

The spleen is normal in size (1.23 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 enlarged with irregular peripheral contours. The parenchyma is isoechoic relative to the spleen. An approximately 9 cm solid irregular mass is arising from the caudal aspect, on the left side. In the remainder of the liver, the parenchyma is relatively homogeneous. Vascular and biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1:1. The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate to large amount of aggregated echogenic, partially dependent debris/sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

*Gastrointestinal*

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

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

**HOSPITAL NAME**

Southside AH

**REFERRING VET**

Dr. Jaime Carroll

**INVOICE**

14808

**DATE**

4/12/23



**PATIENT**

Buster Paulling

**SPECIES**

Canine

**BREED**

Beagle

**SEX**

Male, neutered

**AGE**

13 Yrs. 1 month

**WEIGHT**

27.8 lbs.

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

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

**HOSPITAL NAME**

Southside AH

**REFERRING VET**

Dr. Jaime Carroll

**INVOICE**

14808

**DATE**

4/12/23

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.

**Pancreas**

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic 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.

**Free Abdomen**

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

**Other**

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings:**

- Large liver mass, predominantly left sided. Neoplasia (i.e., adenoma, adenocarcinoma, round cell tumor) is suspected with a lower possibility of a benign process (i.e., excessive regenerative nodular hyperplasia).

**Secondary Findings:**

- Gallbladder sludge. Differentials include cholestasis, fasting or less likely, an emerging mucocele.
- Mild bilateral chronic age-related renal changes.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- If an aggressive approach is desired, consider three-view thoracic radiographs to assess for pulmonary metastatic disease +/- a fine needle aspirate of the mass and/or surgical removal with submission for histopathology. If surgery is pursued, an abdominal CT scan may be useful in pre-surgical planning. Clotting times should be performed prior to any hepatic tissue sampling.
- If aggressive diagnostics/treatments are not pursued, palliative care is recommended.



**PATIENT**

Buster Paulling

**SPECIES**

Canine

**BREED**

Beagle

**SEX**

Male, neutered

**AGE**

13 Yrs. 1 month

**WEIGHT**

27.8 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

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

**HOSPITAL NAME**

Southside AH

**REFERRING VET**

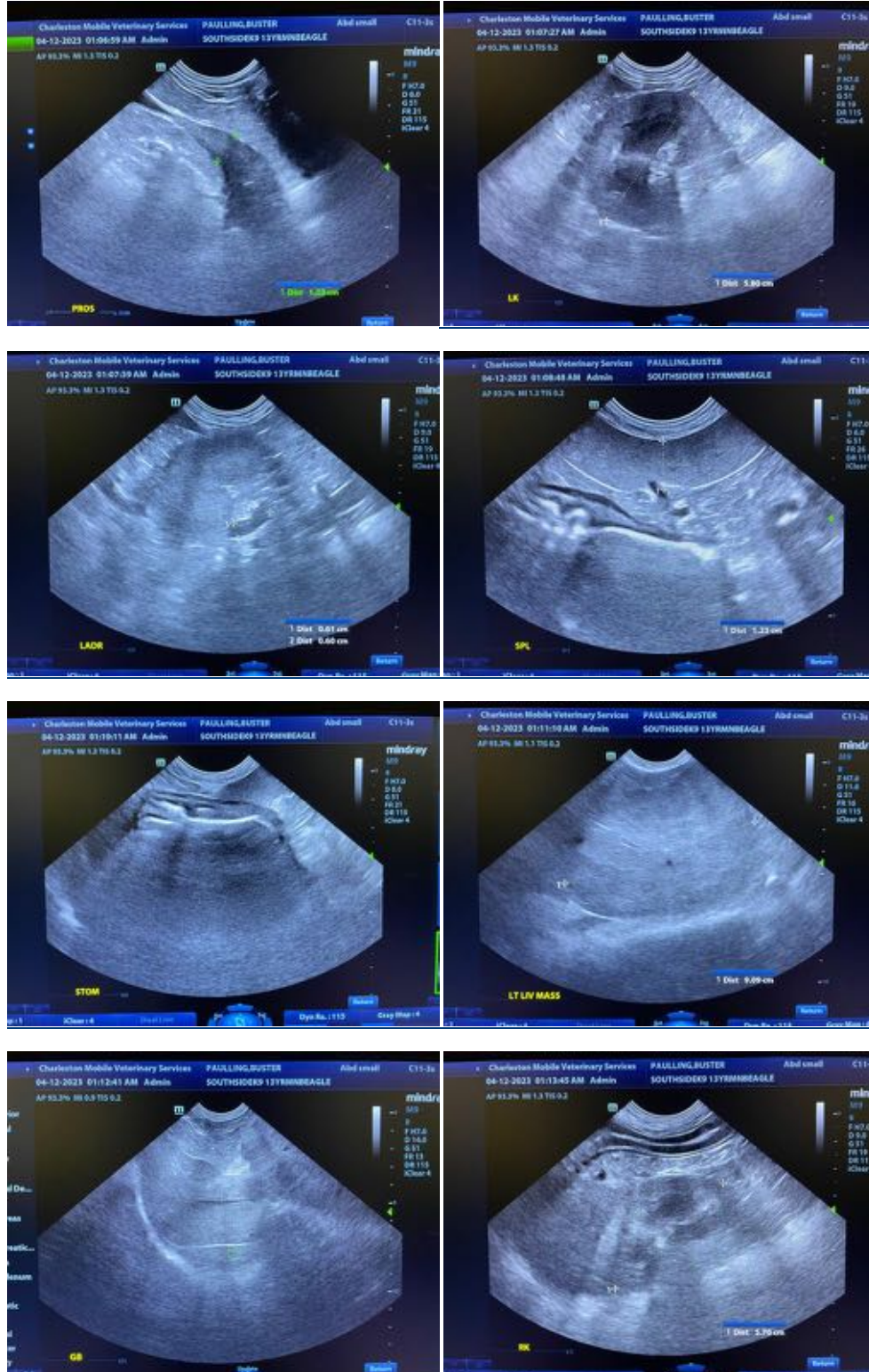
Dr. Jaime Carroll

**INVOICE**

14808

**DATE**

4/12/23





**PATIENT**

Buster Paulling

**SPECIES**

Canine

**BREED**

Beagle

**SEX**

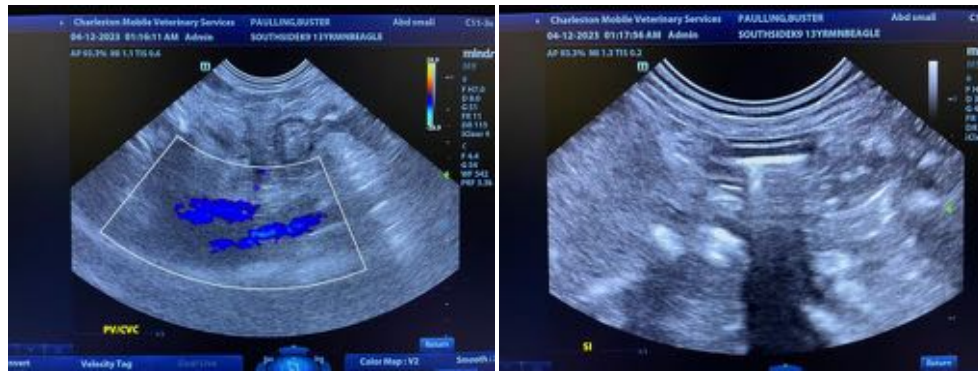
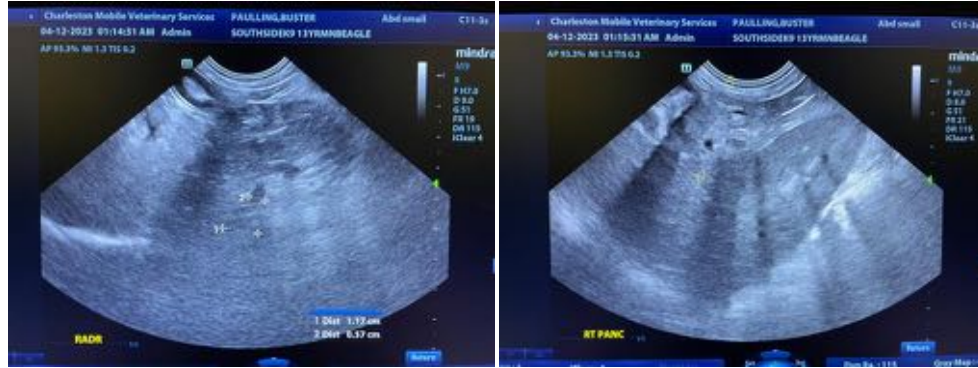
Male, neutered

**AGE**

13 Yrs. 1 month

**WEIGHT**

27.8 lbs.



**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

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

**HOSPITAL NAME**

Southside AH

**REFERRING VET**

Dr. Jaime Carroll

**INVOICE**

14808

**DATE**

4/12/23

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)  
[info@SonoPath.com](mailto:info@SonoPath.com)